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THE JOURNAL

OF

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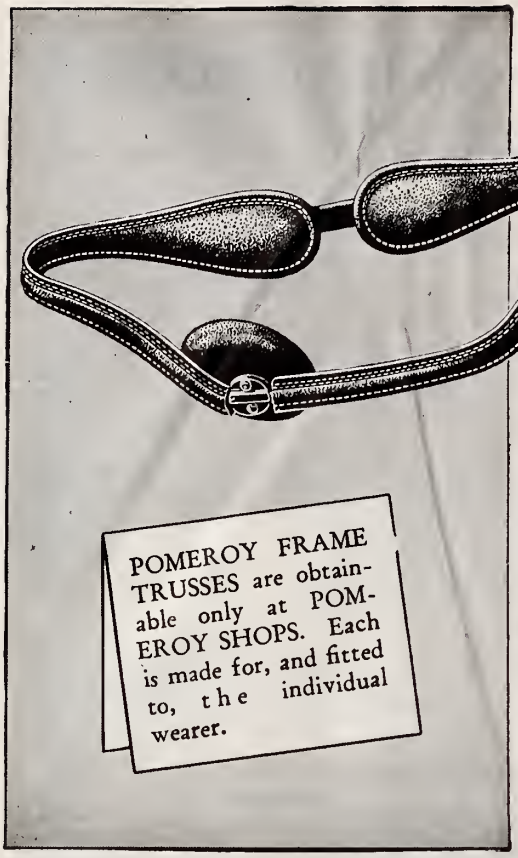
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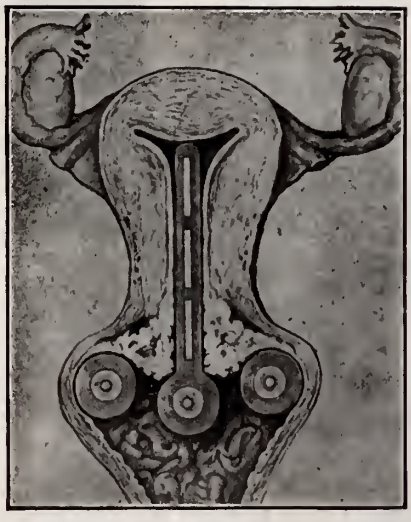
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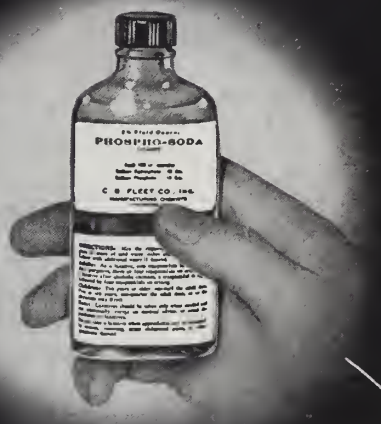
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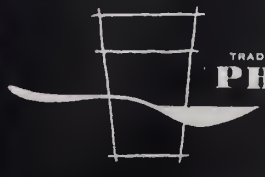


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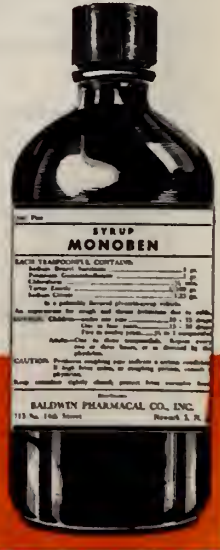
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References: 1. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:442, 1936.
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3. Sahyun, M.: *Am. J. Dig. Dis.*, 13:59, 1946.

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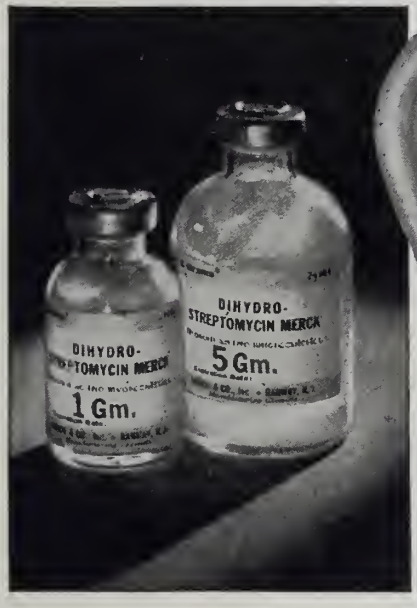
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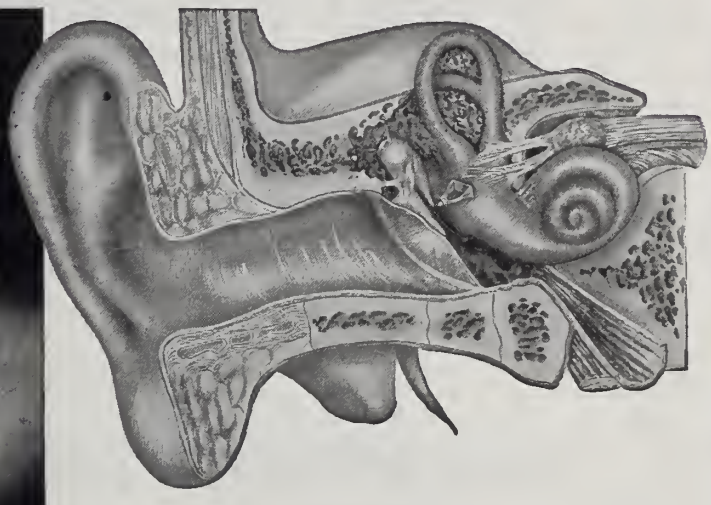
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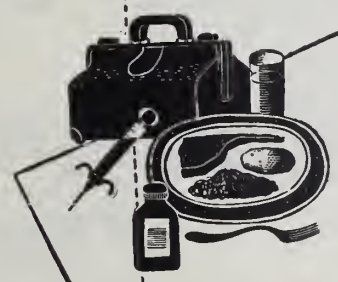
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1. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics, New York, Macmillan, 1947, P. 478.

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*Beams, A. J., and Endicott, E. T., Histologic changes in the livers of patients with cirrhosis treated with methionine, Gastroenterology 9:718-735 (Dec.) 1947.

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Rakoff, A. E., Paschkis, K. E. and Cantarow, A.: A Clinical Evaluation of Dienestrol, A Synthetic Estrogen, J. Clin. Endocrinol., *7*:688 (Oct.) 1947.

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Sikkema, S. H. and Sevringhaus, E. L.: Dienestrol: Another Synthetic Estrogen of Clinical Value, Am. J. Med., *2*:251 (Mar.) 1947.

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Low Back Pain from the Orthopedic Standpoint
California Medicine
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1. Follis, R. H., Jackson, D., Eliot, M. M., and Park, E. A.: *Am. Jour. Dis. Child.*, 66:1, July, 1943.
2. Stearns, G.: *Jour. Lancet*, 63:344, Nov., 1943.

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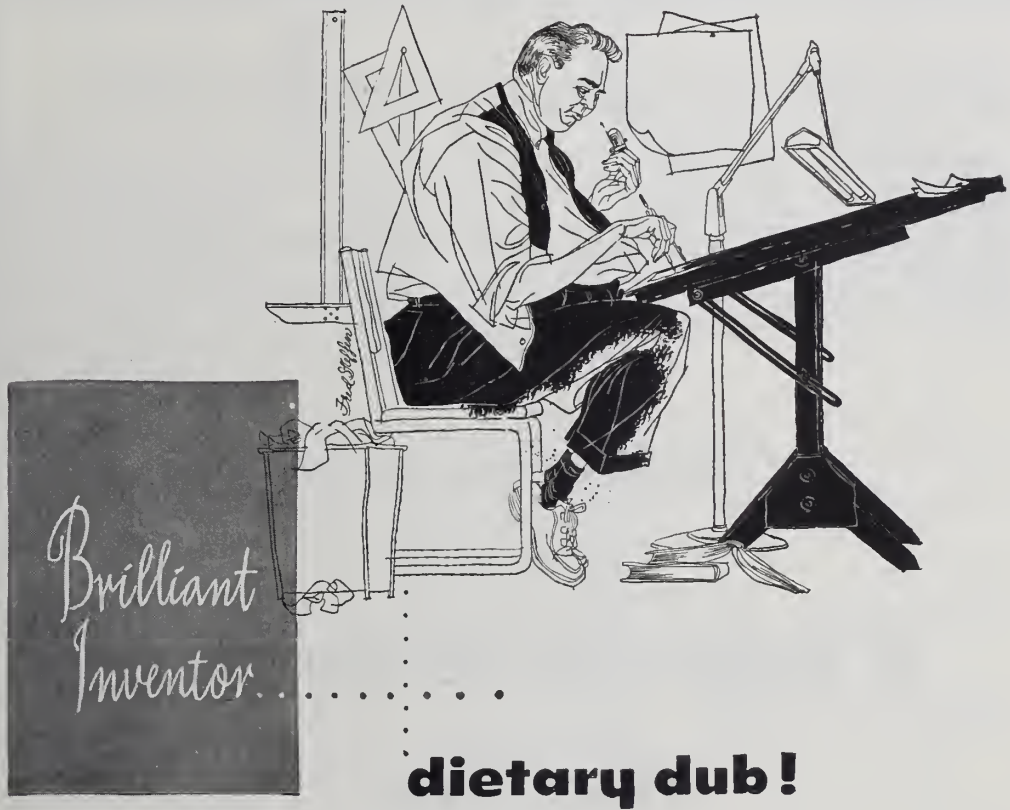
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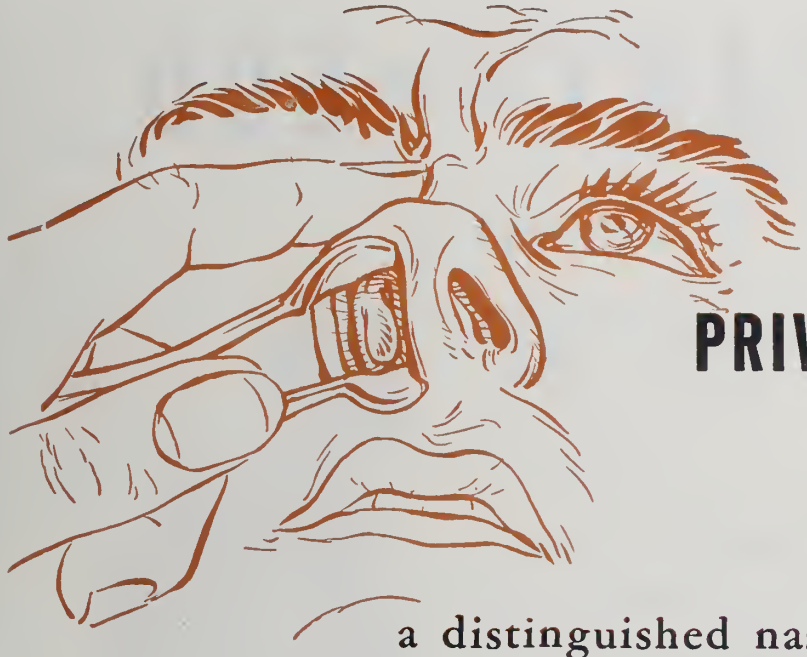
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[1] Nutrition in Diabetes, Nutrition Rev. *6*:257 (Sept.) 1948.

[2] Diabetes and Arteriosclerosis in Youth, Editorial, J.A.M.A. *135*:1074 (Dec. 20) 1947.

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Number 1

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PRESIDENT'S MESSAGE

The Meaning of "Public Health Week"

Every member of The Medical Society of New Jersey may take pride in the success of our first state-wide "Public Health Week", November 8 to 12, 1948. Nearly every county society arranged a formal program. In twelve centers, a full scale observance was presented, including moving picture shows, health exhibits and evening forums.

Early estimates indicate that at least 500,000 people were reached directly, through attendance at the health exhibits, lectures, motion pictures, at group meetings addressed by representatives of the county societies, or through educational features emanating from the state society and published in various newspapers.

Hundreds of thousands more people were reached by news reports of the various county programs published in a majority of the newspapers throughout the state.

I would summarize the benefits of "Public Health Week" in these words:

1. Half a million New Jersey people received some practical health information.

2. Perhaps two million more people read of plans for "Public Health Week" and learned that the medical societies and allied agencies were engaging in a big enterprise for the public benefit.

3. The county and state societies gained valuable experience in the technic of public health education and in working with lay agencies and other professional groups.

4. Many individual doctors who had never before participated in medical society activity were inducted into the ranks of active workers, to the great profit of their societies, themselves, and the public.

5. We made a promising start in creating the concept of the medical so-

cieties, as groups devoted to the public welfare, in the minds of many New Jersey people.

Although the idea of a state-wide "Public Health Week" originated several years ago, it is a source of pride to me, as your President, that the plan was brought to successful fruition during my term in office. The testimony of those who worked most energetically to make our 1948 "Public Health Week" a success convinces me that it will be repeated, by acclamation, year after year, and with increasing scope and benefit to all concerned.

We all owe a vote of thanks to the hundreds of our colleagues who contributed to this achievement, and I am personally most grateful to each and every one of them.

J. Howard Hornberger, M.D.
President.

EUTHANASIA

From time to time, groups of doctors motivated by the highest of sentiments, urge legislative authority for euthanasia. They describe the months of agony which face terminal victims of incurable disease, and feel it their duty to ask for the right to give such sufferers quick and painless release. A neighboring state, indeed, has a permanent organization called the "Committee of 1776 Physicians" dedicated to the legalization of euthanasia. Since such a right can easily be abused, most proponents of this legislation call for various safeguards, such as having the patient present a signed, witnessed and attested demand, or having the death sentence confirmed by a committee of medical consultants or requiring authorization from a local law court.

One wonders at the self-confidence of physicians who seem willing to carry the awful burden of deciding who should live and who should die. The demand of the patient is certainly no honest way of shifting the responsibility. Every doctor knows that persons in pain, persons in the shadow of some "incurable disease" are scarcely, in any moral or psychologic sense, "in their right minds" when it comes to passing on their own fate. Even so benign an illness as ordinary sea-sickness sometimes drives victims to anguished expressions of a desire for immediate death. And in these days of powerful anodynes and synthetic opiates, there is no reason why a patient in the last stages of an incurable illness should be permitted to go without the merciful nepenthes in our formulary.

And what of the doctor himself? Can he with clear conscience sign the death warrant, not knowing whether tomorrow or next week, from the beneficient thaumaturgy of the laboratory, there might not come some drug or procedure that would transfer the disease from the "incurable" to the "treatable" column? So it has happened before, and with the gallop of modern medical science, so it will happen again. The doctor is sworn to be the implacable foe of the Dark Angel. Is it proper that he serve as his accomplice? For though we are sometimes led to think otherwise, the doctor after all, is but a man. And to no man, as an individual, should there be granted the irreversible right to say "you may live; and you may die". It seems peculiarly unfitting that the physician, who should preserve it, should be the one to destroy that last blessing in Pandora's box—hope, the gift that remained when the others had flown away.

WE'LL TELL THE WORLD

The unanimous decision taken by the House of Delegates of the American Medical Association to assess each of its members twenty-five dollars in 1949 is an event of tremendous significance, both for the medical profession and for the public.

Regrettably this action was at first hastily interpreted by some newspapers as the acquisition of a "war chest" for the purpose of fighting federal compulsory health insurance. The American Medical Association only belatedly corrected this impression. In a statement, issued after the newspaper accounts first appeared, the A.M.A. Trustees declared that the funds are to be raised "for a nation-wide plan of education on the progress of American medicine, the importance of the conservation of health and the advantages of the American system in securing a wide distribution of a high quality of medical care."

For nearly two decades, American medicine has allowed itself consistently to be maneuvered into an attitude of opposition and of seeming to obstruct what our critics have represented as social progress. To the average doctor working in the vineyards it has seemed tragic that American medicine—again and again—and now, once more again—should be jockeyed into a defensive position before our patients and our public.

The American medical profession has accomplished many things of which we may rightly be proud. Our science and art have advanced dramatically and our services have improved impressively in life giving and life saving effectiveness. We have so much to fight *for*, one wonders how it ever came about that we should be forced to fight *against* a nostrum conjured up by a strange crew of reformers, politicians and idealists.

The answer lies in the simple fact that we have never interpreted ourselves, our aims, purposes and methods—and the indispensable requirements of medical progress—to the public. We have never presented ourselves, in affirmative constructive terms, to our lay friends.

So, as we raise our modest little educational fund, let us hope it may be dealt out more skillfully than we have played our pat hands in the past. There is no need to boast, to exaggerate our virtues, nor even to conceal the occasional failures of medicine. Our task, in its biggest and simplest terms, is to identify the preservation of our medical freedom and our professional integrity with the best interests and welfare of the American people.

Encouragement is to be found in the apparent fact that the American Medical Association is at last going to speak strenuously, in its own name, and—let us hope—with some little skill. Nothing but good can come from the prospect that, whatever the final outcome, the American people are going to receive a maximal therapeutic dose of information about their doctors, what they've been up to all these years, and their hopes and plans for the future well being of the citizenry.

Within our own ranks, it is probable that this unprecedented national assessment will energize many of our professional brethren. It is axiomatic that when you buy something, you want to watch them wrap it up and you like to take it home. We expect that more than a few of our colleagues will follow the public activities of their profession with unaccustomed interest, and will take a hand in converting their investment into a triumphant enterprise.

Let no one underestimate the influence of the American medical profession, if it ever becomes fully aroused. The battle for the preservation of a free profession, and for the freedom of medical science to grow in service to the public will take everything we have to win. And if this struggle should be lost, every American will be the loser.

ORIGINAL ARTICLES

OFFICE DIAGNOSIS OF PERIPHERAL VASCULAR INSUFFICIENCY

Walter Redisch, M.D.,* New York City

The transportation of blood *to* the tissues is almost entirely a function of the large, medium sized and small arteries; the transportation of the blood *from* the tissues back to the heart is a function of the small, medium sized and large veins; metabolic functions are left entirely to the capillary system and, perhaps, in small part, to the arterioles and venules. The arterioles and venules in turn are in all probability, concerned with regulation of local blood pressure but play a considerable part also in the alterations and maintenance of systemic blood pressure.

Consequently, arterial disease will be manifested either by sudden (acute occlusion) or by gradually progressing curtailment of arterial supply to the tissues with a chain of resulting tissue changes up to tissue death, gangrene. Venous disease on the other hand will be manifested by failure to drain the tissues adequately of blood after metabolic and gaseous exchange has taken place. The obvious manifestations will be edematous swelling, cyanosis and tendency to ulceration. Insufficiency of circulatory regulation in the minute blood vessels will be manifested by disturbances in tissue metabolism; it has not yet been explored sufficiently.

In the pathology of a system, the main aspects are the pathologic physiology and the pathologic morphology. In this field, pathologic physiology is by far the more important aspect, chiefly because we deal so much with impaired function, while specific organ pathology enters our clinical concern only secondarily. The classical differentiation between "organic" and "functional" peripheral vascular disorders is somewhat dogmatic. If a so-called functional vascular disorder lasts long enough, it may become "organic" in many respects and may, as a result, cause considerable damage. In the majority of cases it is the disturbed function and its organic sequelae we are mostly concerned with, in office and clinic.

It seems therefore justified to introduce the concept of peripheral circulatory insufficiency, arterial and/or venous, acute or chronic, and to present a general office outline on how to approach the patient suspected of such insufficiency.

The classification here presented will serve two purposes: (1) To show the great number of specific entities which may give rise to the basic disturbances discussed here. To discuss their specific diagnosis and differential diagnosis is of course not within the scope of this paper. (2) To provide a classification which would not be rigidly pledged to the concept of "organic" and "functional" disease.

OFFICE DIAGNOSIS

Good, thorough and meticulous clinical examination is the most important of all diagnostic approaches. "Good" means that the examiner knows what to look for and how to look for it; "thorough" means that he does not confine himself to the particular system in question, but realizes what impact all other systems and many related or even seemingly unrelated conditions may have as causative, associated or complicating factors; "meticulous" means that no small detail is overlooked or omitted since even an apparently trivial item may give a helpful lead. While that is true for probably all fields of medicine, it must be especially stressed over and over again in the field of circulation because there are many, more or less specialized diagnostic methods of investigation in this field, which

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are out of the immediate reach of the doctor's office. They have become known to the medical public because many of these methods have yielded ideas for active treatment. They are of great value only if used under controlled conditions, by workers who are thoroughly familiar with their evaluation and aware of their pitfalls; they are misleading and dangerous if used haphazardly. They will not be discussed in this paper.

The examination starts with a good history. There are a few points to be covered more specifically in taking a vascular history: the use of tobacco has to be ascertained; quantity and starting age are of importance for the evaluation, the management and the prognosis of the case. The same is true for the history and attitude of the patient toward alcoholic beverages. Generally speaking, the use of tobacco is one of the greatest enemies, the moderate use of alcohol one of the greatest helpers in the management of arterial disease.

Sensitivity to cold and heat, exposure to thermal injuries are of great importance. The use of certain drugs, or poisoning by such drugs (especially ergot, lead, arsenicals and all kinds of vasoconstrictors, such as the adrenalin group, pituitrin, etc.) are of importance. So is the patient's occupation (use of pneumatic tools, pianists, typists).

We have seen many a good doctor miss the importance of fleeting red streaks (sometimes painful, sometimes painless) or minimal swellings on the extremities; yet these superficial transient thrombophlebitides, which never really incapacitate the patient, are one of the best pathognomonic signs of early Buerger's disease, and a history of such fleeting red streaks may give the physician a decisive lead.

Onset, duration, location, severity, progression of pain and/or burning, and a definite statement as to what brings about pain and what relieves it, have to be ascertained in all possible detail. Intermittent claudication is basically characterized by onset on exertion and relief on rest. Our interest will be centered upon observations of the patient on his extremities. How many blocks can he walk without pain? This is one of the most informative questions. Varicosities and their course, ulcers and their healing tendency, color changes, numbness, tingling, skin infections and infestations are details about which the patient will, as a rule, be able to give valuable information, if questioned thoroughly.

Occupation, living and working conditions have their specific aspect in this field: we know a specific occupational peripheral vascular disease, occurring in people who are using vibrating tools and in pianists and typists. Hazards like exposure to wet and cold may play a role in the development of vascular disturbances.

We always ask for history of diseases which may aid in the development or influence the course of peripheral vascular diseases. Diabetes mellitus is the best known and probably most important offender. Instances are not rare when the diagnosis of diabetes during the second half of life is established in the course of investigation for peripheral arterial disease. Blood dyscrasias of all kinds, especially polycythemia are of great importance, and so are all wasting diseases. It is essential to communicate with all physicians who have treated the patient in the past. A good clinical investigation will work both ways: valuable information will be brought to light for the evaluation of the vascular disease, and even minor observations made on investigating the vascular disease may turn out to be of decisive value for the patient's general status.

Examination of heart and lungs, palpation of the abdomen, reliable taking of blood pressure, urinalysis and a complete blood count should be part of our routine examination in every case.

Let us now concentrate on examination of the extremities. We start with inspection and unlike other fields, will return to inspection after having gone through the other parts of physical examination. On first inspection we look for edema, ascertain the type of edema if present and get as a first impression some idea as to whether the edema is part of a generalized process (cardiac, kidney or other) or whether it is more likely due to local vascular disease. Hard, brawny, indurated edema will be either lymphedema or a combination of such with that of venous congestion. The

history will help and correlation with the rest of the examination will decide. Edema on an entirely venous basis will be usually combined with some cyanosis; it will be pitting, at least to some degree.

Next we look for pigmentations and indurated or retracted areas of healed ulcers. Fresh ulcers will be examined for size, the presence or absence of secondary infections and/or the presence or absence of granulations. Approaching the distal end of the extremity, we look for blebs, rosy spots and scaling. We determine if the skin is shiny and glossy or puffy and dull. The skin in arteriosclerotics has a tendency to be "thin" and rather glossy, while the skin in Buerger's disease is usually more puffy and dull. We look for secondary infestations, especially epidermophytoses. And finally we look for evidence of tissue necrosis, gangrene. It may be just a small area of hyperkeratosis on the tip or a side of a toe or the heel with a black point in the middle and beneath the hyperkeratotic reaction; or it may be a dusky bluish discoloration, extending to the half of the foot or even farther, with large ulcer formation in one or several places; or it may be a blackish, dry mummified rest of a distal limb; all stages of extension and all types may be combined with each other. If we find such gangrene, we next look for the presence or absence of demarcation. Demarcation is the more or less sharp delineation of the dead against the living skin tissue with a zone of bright red hyperemia circling this delineation.

Turning to the venous system, we look for the presence of varicosities on rest. Varicosities of superficial veins are the most frequently encountered expression of development of collateral circulation in all parts of the body. Generally speaking, venous collateral circulation is visible, while arterial collateral circulation as a rule requires more indirect methods of visualization. One exception is the development of enormously enlarged intercostal arteries in long-standing cases of coarctation of the aorta, which may be visible and, of course, palpable in their violent pulsation.

Our next step is palpation. On the upper extremity, we palpate the brachial and radial arteries and under some circumstances, the axillary. On the lower extremity we look for the femoral (beneath Poupart's ligament), for the popliteal (in the popliteal space with the knee slightly bent) and for the dorsalis pedis and the posterior tibial arteries. While the posterior tibial artery will be usually found behind the internal malleolus, the dorsalis pedis is less constant in location. It is supposed to be found around the head of the second metatarsal; but its course is frequently atypical and one has to look all over the dorsum pedis for it, before it can be said that its pulse is not palpable. And there may be a rare case, where the dorsalis pedis runs so deeply, that it cannot be palpated. The danger here, however, is not great, because this is rare and because we do not rely on just this one phase of examination. The pulse may be of normal strength, diminished or bounding. To judge a diminished pulse, there must be a difference between the two sides. Comparison between the two extremities is always of great importance. In case of absence of one extremity, the doctor will make every effort to determine in the history, why ablation of the limb had been performed. Palpation of the skin will give us additional information about its nutritional state.

Wherever we see a coil of veins accumulated in one place, we palpate for a thrill; if at the same time the skin is warmer than in surrounding places, we will be reasonably certain in making a diagnosis of an arteriovenous fistula. On auscultation, we hear a bruit, as a rule. If we find one limb much warmer and much larger than the other, we are suspicious of congenital arteriovenous fistula or fistulae and thoroughly search for this symptom complex in one or more places. These are good examples of how the combination of just three of the most simple basic approaches in physical examination, if intelligently executed, will lead to the correct diagnosis of a highly specified peripheral vascular condition.

Deep palpation for cords (representing the sequelae of old organized thrombophlebitis) or for short superficial cords (representing sequelae of superficial thrombophlebitis in Buerger's disease) are essential parts of examination of the venous system. Such cords may be tender or non-tender. We palpate for rigidity

and/or tortuosity of peripheral arteries as a sign of generalized arteriosclerosis. We palpate for the peculiar, regular beading in periarteritis nodosa. We palpate for the temporal arteries and the carotid arteries.

We palpate cautiously for temperature changes. These are of significance only if we expose both extremities to room temperature under equal conditions and for an equal length of time and if we compare one extremity with the other, or with those of a healthy person. Again the history may be an important lead. If an individual complains about burning sensations of one or both sides and we find a very hot extremity correspondingly, we become suspicious of erythromelalgia, also called erythermalgia or Weir-Mitchell's disease. We then find, on inspection, larger or smaller areas of bright-red or dusky-red hyperemia with swelling.

Auscultation is not much used in the peripheral system proper, except in certain aspects of cardiac disease and in arterio-venous fistula. Percussion is of no significance in the examination of the peripheral-vascular system proper.

We have discussed so far the procedure of physical examination with the extremities resting. Let us review the changes occurring with change of position, which are of particular significance in examination of the peripheral-vascular system. On the arterial side, specific color changes may be observed: blanching of the sole, the toes and sometimes the whole foot on elevation of the limb, are an outstanding sign of arterial insufficiency, which we may observe in obliterating arteriosclerosis, in thromboangitis obliterans, in chronic trench foot, in obliterating endarteritis. Exercise of the elevated limb will increase the ischemia. Rubor on dependency is a second such symptom: it consists of a dusky-red intense discoloration, something in-between arterial hyperemia and cyanosis, but very much characterized by its intensity. The explanation is probably the insufficient *vis a tergo*. When an extremity has been elevated, and the person then is asked to sit up and let the feet hang down, the color usually returns quickly, within about ten seconds (it must be said that some loss of color on elevation is of course physiologic); in arterial insufficiency, there is marked delay in the return of color, followed by rubor. Sometimes we see no phase with return of color at all, but the ischemia will be directly followed by rubor. The procedure on examination will be: observe the extremity on rest; elevate the feet by about ten inches, observe, and have the person move the ankles and wiggle the toes, or in the case of the upper extremity, have the person put "hands up" and then have the subject rotate the wrists and open and close the hands; then have the patient sit up and let the feet hang down (or let the arms hang down). While obliterating arteriosclerosis is comparatively rare in the upper extremities, this is not so in Buerger's disease and in the different forms of endarteritis.

Some other clinical tests are helpful in establishing arterial insufficiency in the extremities without having to resort to any kind of apparatus. An excellent one is the measurement of venous return time: all one needs is a flat rubber band (a tourniquet will do, if it is not too thin) and an ordinary watch. The patient is flat on his back. Select one of the small visible veins on the dorsum of the foot, which will be found filled in most people. Elevate the leg and strike the small vein empty. Put the rubber band or touniquet around the leg, immediately beneath the knee, so that arterial afflux is not obstructed, while venous reflux is; it is easy to find the right strength of obstruction by observing the skin of the limb and exerting moderate pressure only. Then lower the limb and note the time when one releases the obstruction. Carefully watch the vein of choice (one can easily see the empty channel) and note the time when it refills. The normal filling time is between five and fifteen seconds. Collens and Willensky, who have devised this test, give the upper limit or normal with 13 seconds. Values above 20 seconds are, in our experience, indicative of arterial insufficiency. The test is of course of no value in persons who have varicosities.

Testing intermittent claudication by measured walks or certain work performance is of informative value.

The examination for postural color changes and the testing of venous return time have supplied the physiologic rationale and basis for therapeutic procedures; the former for what we call Buerger's exercises, the latter for the apparatus for intermittent venous compression, devised by Collens and Willensky.

Finally, we have a method of determining the degree of arterial spasm as compared with the degree of permanent occlusive changes present in a given case, which does not call for any elaborate apparatus. That is reflex vasodilatation by heat,—the Landis-Gibbon test. By immersing both upper extremities in water of 43 to 45 degrees centrigrade (109 Fahrenheit) for an hour, the temperature of the lower extremities in a room kept at 20 to 23 degrees centigrade (41 Fahrenheit) will go up. The more the temperature and color improve, the more spasm is being released. The lower extremities should be exposed to the room temperature for thirty minutes before starting. This will be a crude test only, if no temperature-controlled room and no registering skin thermometry apparatus are available. However it will give the physician a rough idea, until finer methods may be made available. This is better than such pseudoscientific procedures, as measuring skin temperature after one more or less arbitrarily dosed injection of etamon, in a non-temperature controlled room, with a small dermatherm or some other such machine. The range of error of this apparatus is almost as wide as the changes recorded. In performing the test, make sure that there is no arterial occlusion in any of the extremities, which are being immersed in order to produce the reflex; this has been shown by Pickering to be one great possible pitfall in this test. There are other objections too, and it must be stated in all fairness, that where a differentiation and evaluation between spasm and organic occlusion becomes of decisive importance, more elaborate methods in a good circulation laboratory will have to be used; however, this type of patient will usually be hospitalized anyway, for the contemplated therapeutic procedure.

For examination of the venous system, we may mention in addition to the above outlined physical examination: (1) Homans' sign for deep thrombophlebitis: retroflexion of the foot with the leg held down elicits pain in the calf of the patient and a rigidity to the touch of the examiner. (2) Many tests have been described for the determination of competency of veins in varicosities. The oldest is the Brodie-Trendelenburg test. It is performed by elevating and digitally occluding the greater saphenous vein, where it enters Rosenmueller's grove. The classical execution of the test calls for a dual performance: first, the patient stands up, and the pressure is relieved immediately; the second time, the entire procedure is repeated, but the patient then stands up and the pressure on the saphenous is maintained for thirty seconds and then released. The interpretation of the test is most confusing in its complicated nomenclature, as given in the literature. I suggest the following approach: the slower the varices fill, the more competent are the valves; the quicker they fill, the less competent. The result after quick release of the pressure will give more indication of the competency of the saphenous; the result after maintained pressure will tell about the competency of the communicating veins. The time-honored Perthes test has been practically modified by Ochsner and Mahorner. A tourniquet is applied around the upper part of the thigh and the patient told to walk around briskly. If the varices disappear, the saphenous veins are incompetent, but the communicating veins are competent. If the varices become more prominent and the patient complains of pain, we are dealing with obstruction of the deep veins. This test is then repeated with the tourniquet around the middle of the thigh and a third time with the tourniquet just below the knee. In this way, the incompetency of communicating veins may be fairly well localized. Pratt has described an excellent test for incompetency of the communicating branches. In addition to the tourniquet, an Ace bandage is used, which is applied from the foot up to the tourniquet, the latter being placed around the thigh at about Rosenmueller's grove. As the patient then stands up, and the bandage is unwound, a bulge will indicate the area of an incompetent communicating branch and may be marked for proper attention at operation.

CONCLUSION

It may be stressed once more that the object of this paper is to deal with the diagnosis of insufficiency of the different segments of peripheral circulation, in the doctor's office. Such insufficiency is the common and most important result of peripheral vascular disorders of all different "functional" and "organic" etiologies. Differentiation into and determination of, the exact clinical entities can also frequently be accomplished by means available in the doctor's office. Frequently, however, the services of a well equipped circulation laboratory in a hospital will be required. Differential diagnosis and therapy will be presented to this JOURNAL at a later date.

SUMMARY

(1) The concept of peripheral circulatory insufficiency and its segmental aspect is introduced and discussed briefly.

(2) An outline for diagnosing cases of circulatory insufficiency in the physician's office is presented.

(3) A classification of peripheral vascular disorders is presented.

Classification of Disorders of the Vascular System

A. REGULATORY DISORDERS.

1. Vasospastic
   a. Medium-sized arteries
      1. Scalenus anticus syndrome
      2. Cervical rib and transverse spinous process syndrome
      3. Post-traumatic segmental arterial spasm
      4. Sudek's atrophy
      5. Etiology unknown (causalgia)
   b. Pre-capillaries
      1. Raynaud's Disease and Raynaud's Syndrome
      2. Occupational (vibrating tools)
      3. Acrocyanosis (also capillaries)
   c. Capillaries
      1. Scleroderma
2. Vasospastic (arterioles) and vasodilator (capillaries)
   a. Erythrocyanosis (warm acrocyanosis)
3. Vasodilator
   Weir-Mitchell's Disease (erythromelalgia)
   (small arteries, pre-capillaries and capillaries)

B. OCCLUSIVE DISORDERS.

1. Generalized
   a. Periarteritis nodosa
   b. Lupus erythematosus disseminatus
2. With special predilections (chiefly extremities)
   a. Inflammatory and/or toxic
      1. Acute
         a. Arteritis
         b. Phlebitis
      2. Sub-acute obliterating endarteritis
         a. Syphilitic
         b. Tuberculous
         c. Due to ergot
         d. Etiology undetermined
      3. Chronic
         a. Obliterating thromboangitis (Buerger's Disease)
         b. Obliterating temporal arteritis (Hutchinson)
   b. Non-Inflammatory
      1. Obliterating arteriosclerosis
      2. Embolic occlusion and arterial thrombosis
      3. Venous thrombosis

C. ORGANIC NON-OCCLUSIVE DISORDERS.

1. Due to exposure to cold
   a. Frostbite
   b. Perniosis (acute and chronic)
   c. Trench Foot (Immersion Foot); acute and chronic
2. Due to Arterio-venous shunt
   a. Arterio-venous aneurysm, congenital
   b. Arterio-venous aneurysm, acquired
3. Teleangiectases and tumors of the vascular system
   a. Localized vasodilations in the skin
   b. Rendu-Osler's Disease
   c. Glomustumor
   d. Hemangiomata
   e. Nevi

D. SYSTEMIC DISORDERS WITH PERIPHERAL VASCULAR MANIFESTATIONS.

1. Causing damage and increased permeability of minute blood vessels
   a. Blood dyscrasias
   b. Renal failure
   c. Hepatic failure
   d. Heart and circulatory failure
   e. Severe infections
2. Causing multiple thrombosis
   a. Essential thrombophilia (Nygaard's Disease)
   b. Polycythemia vera
3. Causing Gangrene: syringomyelia and other central nervous system disorders

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THE SURGICAL GALL BLADDER *

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Reviewing two-hundred consecutive gall bladder operations during 1946 and 1947 at the Mountainside Hospital brings to light certain important problems that most surgeons encounter.

INCIDENCE

Average age was 50 years; the oldest 79 and the youngest 20. Gall bladder disease is rare in children but I believe there is one case on record where the patient was only 4½ years old. On May 29, 1940, I reported a Negro child 9 years old with gall bladder disease in which the gall bladder contained many stones; jaundiced and with intermittent fever.[6] A year later a patient 8 years old with a typical biliary colic, jaundiced, was also operated on at the Mountainside Hospital. Most of the patients (72 per cent) in this series of 200 were between 31 and 60 years of age. Women predominated—79 per cent, a ratio of almost four to one. The age of the patients has an important bearing on the results of the surgery. Glynn's series [1] of patients 50 years and over has a 5 per cent mortality, whereas a similar series less than 50 years old had a death rate of only 1.3 per cent, showing that risk is much greater in older subjects. The length of time the patients had presented biliary tract symptoms varied, in my series, from six hours to 30 years; average duration was 2 years.

PATHOLOGY

Routes of Infection:—The paths by which infection reaches the gall bladder and its ducts are still a matter of controversy. It is usually accepted that the routes of infection are either: (1) through the blood stream; (2) through the biliary tree; (3) through the lymphatics. Frequently, I am sure you have noticed a large, red inflamed lymph node at the base of the cystic duct, which rather proves that infection might be through the lymphatic system. The causative organisms might be micrococci or members of the colon bacillus group; or typhoid bacillus, not so frequent now, but the organism may linger in the biliary tract years after the actual disease.

Types of Inflammation: — Following the classification of MacCarty,[2] and the one I always have used, the types of inflammation encountered may be divided into (1) acute catarrhal; (2) chronic catarrhal; (3) advanced chronic inflammation. In the latter, stones in the common duct are most frequently found. In acute cholecystitis, the walls of the gall bladder are thickened, brawny and edematous rather than fibrous. In the chronic type we see proliferation of the glandular elements of the mucosa. Sometimes inspissated bile or small stones may be found in the walls of the gall bladder.

In our series we had 26 cases (16 per cent) diagnosed as "strawberry gall bladder". This seems unusually high in comparison with other statistics. The precise mechanism whereby cholesterol deposits in the tips of the papilla causing them to thicken and produce the characteristic strawberry appearance is not understood. It probably has something to do with the cholesterol concentration of the bile. The chronic form may come in gradually and never flare up into an acute attack, which makes it all the more difficult to diagnose correctly. Yet I am convinced that there is no such thing as an entirely "silent" lesion of the biliary tract. A carefully elicited history should invariably bring out some evidence of previous gall bladder disturbance.

INCIDENCE OF CHOLELITHIASIS

X-ray showed stones in 62 per cent of my cases; no stones could be visualized in 14 per cent of the films. The gall bladder was shown to be non-functioning in 19 per cent of the

* Read before Annual Meeting, The Medical Society of New Jersey, April 27, 1948.

cases. This emphasizes—if emphasis be needed—that one should never place entire reliance upon x-ray or as a matter of fact, upon any *single* diagnostic aid. In four instances the cholecystogram was interpreted as showing gall stones, but at operation none were found. However, the x-ray diagnosis was correct in 97 per cent of the entire series of cases.

Common duct stones:—In 80 per cent of the patients who were jaundiced, common duct stones were found, though only 18 per cent were jaundiced when they came to operation. The histories however, showed that more than half (51 per cent) had been jaundiced at one time or another. If jaundice persists after cholecystectomy has been performed for noncalculous biliary tract disease, it is evident that the surgery was ill advised, or undertaken on too little positive indication.

SYMPTOMS

Considering the histories given by the patients in my series, the most constant symptom was *pain,* noted in 96 per cent. *Nausea* was mentioned in 47 per cent but in only 41 per cent was it accompanied by *vomiting.* In only 10 per cent was jaundice noted on the entrance charts, but as already mentioned, the ratio was higher among those who came to operation. There was general correspondence between the physical findings and the results of x-ray examination, but in a few instances the cholecystograms were unsatisfactory and the interpretation inconclusive.

Therefore, in any case where visualization is poor and no stones can be made out, surgery should not be considered until (1) all other factors capable of causing the symptoms are ruled out; (2) the patient is suffering such pain as to warrant an attempt at relief by performing a cholecystectomy; (3) abnormality of the biliary tract has been shown by at least two cholecystograms obtained at intervals; (4) medical treatment has been ineffective in relieving "digestive disturbances" of which the patient complained.

OPERATION DURING THE ACUTE ATTACK

The question as to whether the acutely inflamed gall bladder should be removed is still an active subject of debate. In a recent symposium at the New York Academy of Medicine, several surgeons, representing the leading medical centers thereabout, came out strongly in favor of operation during the acute attack. Chief reason given was the comparative ease with which an inflamed (but still uninfected) organ can be taken out, before adhesions form and the duct is closed so that gall bladder function is inhibited. The x-rays showed that the gall bladder was not functioning in 19 per cent of our cases.

It seems to be the opinion that operations done in the acute stage which turned out badly, did so because the inflammation (though still acute) had persisted long enough to produce edema, or even initiate gall stone formation. Though it was agreed that cholecystectomy is the operation of choice, if the patient is too ill to withstand such a procedure, (or if it is found after the gall bladder is exposed that its removal will be difficult and hazardous) cholecystostomy should be done instead. In our series 31 per cent had appendectomy with the cholecystectomy, but it is deemed inadvisable and even hazardous to remove an appendix through the gall bladder incision if it is bound down by adhesions and not freely movable. Under the circumstances it might be better judgment to make a small lower incision even if it might annoy the patient.

Abdominal drainage was instituted in 88 per cent of our cases, a practice which we have followed. Earlier in my surgical career I did many cases without drainage until I had a disaster which necessitated later drainage. It is my custom to use a counter-drain through the flank external to the original incision. This prevents hernias and is just as direct and in fact, gives a better opportunity to place it near the lumbar gutter. A small cigarette drain is used. We had two instances of a ruptured gall bladder with free bile in the peritoneal cavity but we have not included many cases which really show small perforations hardly visible because the omentum protects the infected organ preventing a peritonitis. We had but three cases of spreading peritonitis from infected gall bladders, two without any evidence of a perforation.

On the whole, therefore, I feel the policy of early operation, before it is necessary to contend with adhesions or occluded ducts, has been abundantly justified. It is a matter of early establishment of the diagnosis, and that, as every surgeon knows, is not in the surgeon's hands alone. When the time comes that the general public is educated to seeking medical advice immediately, the hazards of gall bladder surgery will be greatly reduced.

STONES IN THE COMMON AND HEPATIC DUCTS

Though we found common duct stones in only 16 per cent of our patients, I am convinced that it is necessary to explore the duct whenever we are given a history of frequent acute attacks of biliary colic, accompanied by chills and a rise of temperature; when there is clinical evidence of biliary obstruction (jaundice), or laboratory signs of this condition, such as sediment from the aspirated bile; or when the findings on palpation are suspicious and unsatisfactory. The common duct was sometimes found dilated or thickened, with multiple small stones in the gall bladder itself, but we likewise encountered non-calculous gall bladders which had produced typical biliary tract symptoms. They may be contracted or an acute or sub-acute pancreatitis or hepatitis may be responsible for the symptoms.

EXPLORATION OF THE COMMON DUCT

In 2 per cent of our cases, pancreatitis was found associated with biliary tract lesions. We also removed gall stones from thirteen patients who were operated upon for supposedly unrelated disease. The practice of routine exploration of the common duct is becoming increasingly popular, so that it is undertaken much more frequently than was the case only a few years ago. In 1942 Walters [3] reported from the Mayo Clinic that in a series of 200 consecutive cases of common duct exploration, with recovery of stones 35 per cent of the patients had never manifested the classical symptoms, jaundice in particular; and 63 per cent denied having had fever at any time. In the four-year period covered in Cattell's account [4] of the Lahey Clinic's explorations of the common duct, 49 per cent of the patients operated upon for gall bladder disease, had this additional surgical intervention, and in 14 per cent of all biliary tract cases, common duct stones were found. This practically parallels my own experience. While exploration of the ducts takes additional time, and adds to the danger to which the patient is exposed, I am nevertheless convinced that it is advisable in most cases, provided, of course, that there are no contraindications such as old age, extreme debility, or danger of cardiac or renal failure.

COMPLICATING CORONARY DISEASE

Six per cent of our patients had a complicating coronary condition that was definitely diagnosed as such. Twenty-four per cent of the cases gave a history of anginal pains or anginoid pains simulating coronary disease but later disproved as definite heart disease by the cardiologist. Five per cent had been treated for years on the assumption that they were too ill and could not stand the trauma of an operation. They were later operated on without complications and each had an uneventful convalescence.

At one time it was thought that cholelithiasis was an etiologic factor in coronary heart disease with angina pectoris and other cardiac conditions. We know now that gall bladder disease of itself does not have enough influence upon the circulatory tract to bring about structural changes in that system. There is, however, basis for considering such a relationship probable. It is common clinical experience that the symptoms of disturbance in the gastrointestinal tract often mimic those of cardiac lesions. More than that, if a patient whose heart is already damaged develops a biliary tract lesion, it may have an injurious effect upon the coronary or myocardial condition, even if it did not initiate there. Again it is possible that both the coronary or other heart lesions and the gall bladder disease may have been caused by a third pathologic condition so that they developed simultaneously. This probably happens more often than the average physician is aware. Some years ago, B. J. Walsh [5] and his co-workers demonstrated that cholelithiasis in particular may simulate coronary thrombosis with myocardial infarction, or by reflex action produce paroxysmal tachycardia or auricular fibrillation, as well as extra-

systoles. Failure of the myocardium or aggravation of a previously experienced angina pectoris was also laid at its door. These investigators noted that severe coronary arteriosclerosis not infrequently coincided with gall bladder disease in *the older age groups*. This could be accounted for by the aging factor common to both conditions. Differential diagnosis may be exceedingly difficult. Biliary colic has many times been mistaken for cardiovascular pain. The pain is like that experienced in acute myocardial infarction secondary to coronary thrombosis. In either condition the pain may continue for hours beneath and below the sternum, or in the epigastrium. The fact that the biliary colic pain radiates to the back while that of coronary thrombosis does not, may be of assistance in distinguishing gall bladder disturbance, and the patient may assist by providing a history of previous "indigestion" perhaps accompanied by nausea and vomiting. These do not accompany the typical coronary attack. The fact that an electrocardiogram will fail to show any severe injury to the heart muscle, should lead to a correct differentiation.

POSTOPERATIVE CONSIDERATIONS

The mortality in our series compares well with that from the larger centers. In all, we lost six patients, which is three per cent. Cause of death in one case was hemorrhage; in attempting to control this, the hepatic duct was sutured, resulting in necrosis of the liver. Two malignant adenocarcinomas were found, and in one case a right subdiaphragmatic abscess formed. Non-fatal complications occurring after operation were hepatitis, atelectasis, pancreatitis and two instances of cholangitis. Average hospital stay was eleven days, which again compares favorably with reports of larger series in extensive urban services. Ten and three-tenths per cent of those patients had previously undergone operations at other hospitals — cholecystectomy, cholecystotomy and most frequently, appendectomies.

SUMMARY

1. A series of 200 patients is presented, ranging in age from 20 to 78 years. Mortality is greater in the older age group.

2. Infection may reach the gall bladder through the blood stream or from the liver, causing inflammation which may be classified as (a) acute catarrhal; (b) chronic catarrhal, and (c) advanced chronic. The "strawberry gall bladder" is a special form of inflammation due to cholesterol deposits in the mucosa.

3. Gall stones were found at operation in 62 per cent of the cases in this series; common duct stones in 80 per cent of the patients jaundiced at entrance. In 97 per cent, the original x-ray diagnosis was correct. Pain was the most constant symptom, being noted in 96 per cent of cases. Operation should not be undertaken until all factors which might be responsible for the symptoms have been ruled out. Differentiation from cardiac lesions is very important. Operation during the acute state of cholecystitis is advisable if done sufficiently early. Good surgical judgment is required in making this decision. Opening the common duct is good surgical practice if the symptoms —jaundice in particular—warrant it, and no contraindications are in existence.

4. The proportion of postoperative complications was not high, comparing favorably with the figures reported from large medical centers. Mortality was three per cent; average hospital stay was eleven days.

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16 Plymouth Street

INFANT AND FOETAL MORTALITY AT A RURAL HOSPITAL

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During the fifteen years which have elapsed since the Newton (N. J.) Memorial Hospital first opened, 3642 infants have been born there. Total mortality was 4.6 per cent; 92 were born dead and 77 were born alive but died before leaving the hospital.

An infant was considered live-born if the heart was beating at the time of birth, regardless of whether respiration was established. Except for the years 1934 and 1944 there has been a progressive increase in the total number of deliveries at Newton Memorial Hospital from 62 in 1933 to 569 in 1947.

In six of these fifteen years the mortality has been above the average of 4.6 per cent. Half of these 169 foetuses and infants were at term. The criteria to establish viability are those outlined by the Chicago Lying-In Hospital. Although 1000 grams is considered the lower limit of viability, infants weighing between 1000 and 1500 grams, frequently do very poorly, and by some authorities are considered "pre-viable". In this series, twenty-two or almost one-quarter of the still-born foetuses and infants weighed less than 1000 grams. One fourth (actually 20) of the infants who were born alive but then succumbed weighed less than 1000 grams.

This overall mortality of 4.6 per cent compares favorably with the ten year study by Potter and Adair [1] in which their total mortality on all the reportable infants was 4.28 per cent. Thus, the corrected mortality by subtracting our 42 pre-viable infants would leave our comparable mortality at a total of 127 or 3.4 per cent.

In our study, 55 per cent were still-born and the others were neonatal deaths; most of the still-born were females whereas in the neonatal group there were over twice as many males as females.

The mortality ratio (1.9 per cent) is lower in low forceps deliveries than by any other method. However, forceps are rarely applied to a pre-viable or premature foetus. By adding the ratios of both low and mid forceps deliveries we find the natural cephalic type give us our lowest rate of mortality (3.6 per cent). Mortality following breech delivery was almost eight times higher than in natural cephalic cases. Cesarean section showed an unexpectedly high mortality of 15.4 per cent. Highest mortality rate was in version and extraction. These procedures should rarely be used except for the delivery of a second twin or unless indications for immediate delivery exists—usually the life of the foetus must be gravely threatened before this operation is done.

PROBABLE CAUSE OF DEATH

Deaths prior to onset of labor. Of the 61 foetuses who died prior to the onset of labor, almost one-third were premature. These present the most baffling problem related to infant mortality.

It is thought that environmental conditions (such as disturbances preventing normal exchange of metabolites between mother and foetal circulation) contributed to fatal outcome. In this group, premature separation of placenta, placenta previa, cord prolapse and entanglement constituted almost one-third of the causes. Maternal toxemia and major malformations also took considerable toll.

Though in some deaths occurring before onset of labor, the cause is present in the foetus, and in a greater proportion, present in the mother, in the majority of ante partum deaths, the cause is entirely unknown.

Deaths during labor or delivery. Thirty-one foetuses died during labor or delivery and over one half of these were at term. Surprisingly enough, no reason could be found in over 50 per cent. Anoxia and maternal complications followed in that order.

Deaths occurring after birth. Neonatal deaths numbered 77 and made up almost one-half of the complete infant and foetal mortality. One-half of this group were premature infants weighing from 1000 to 2500 grams. Ten in this group presented major malformations but the majority revealed no pathologic lesions.

GRAVIDITY

Multiparas had a somewhat larger incidence of death and still-births than the primigravidas. In both primi and multi gravida mothers, there was no abnormality, *per se,* that could account for the cause of death. Ten had acute infections; six had toxemias; three had malformations; two had traumatic hemorrhage. In this series we could not find a single case in which syphilis played a role. This is probably explained by the alert attitude of physicians at this hospital, in both the early testing, and the early institution of treatment.

MATERNAL AGE

Increasing age gives a proportionately greater possibility of an unsuccessful outcome of pregnancy. Both still-births and neonatal deaths rise constantly in relationship to advancing maternal age. We analyzed total births into the foetal and infant mortality with reference to the 169 cases that were born dead or failed to survive in this institution over these 15½ years. The age group 20 to 29 comprised well over half of the cases and represented the greatest ratio of deaths in the neonatal period. The reason for the high mortality in this age group is simply that the greatest number of births occurred in this bracket. But it is to be noted that 45 per cent of these deaths were in the neonatal phase, which emphasizes the precariousness of that period. Of the still-born foetuses 56 per cent were females and 44 per cent males, whereas in infants dying after birth there were almost twice as many males as females. The preponderance of males over females in this group, (although vastly greater in this series than in similar ones of other institutions) is in accord with some of the other hazards in which males exceed, such as pyloric stenosis. The cause of death, comparing the two sexes, failed to reflect notable variations. Males, however, showed a higher ratio of malformation and traumatic hemorrhage.

In 1934, the number of still-births in the United States, was 78,500; by last year, the figure [2] had been reduced to 65,000.

The tendency of the still-birth ratio is to rise with the increasing age of the mother. A child is most likely to be born alive when the mother is in the age group 20 to 24. The still-birth ratio is high also among the mothers who bear a large number of children in rapid succession. The hazards of still-births could further be reduced if mothers received medical care early in pregnancy, especially those at both extremes of the child bearing period. The factors responsible may be divided into the following headings:

1. *Maternal Complications:—*
   - a. Toxemia
   - b. Placenta previa
   - c. Accidents and injuries
   - d. Premature separation
   - e. Hypertension
2. *Inexpert Obstetrical Care:—*
   - a. Cerebral hemorrhage due to indiscriminate use of oxytoxics
   - b. Unindicated application and improper use of forceps
   - c. Unnecessary performance of version and extraction
   - d. Injudicious use of analgesics during labor
   - e. Prolonged labor
3. *Prematurity*
4. *Inadequate Neonatal Care*

RECOMMENDATIONS

Foetal and neonatal deaths are largely due to conditions associated with childbirth. The problem, therefore, is primarily an obstetrical one. Of the known causes of death in the antepartum period there was not a single one attributable to syphilis since every woman seen by our staff has a Wasserman test early in pregnancy and if positive, is treated early.

The acute toxemias (of which there were five) in the antepartum period can be decreased by carefully watching the patient and promptly instituting treatment for impending developments. Major malformations and anoxia from various causes also took considerable toll. Any effort made to reduce neonatal mortality must be definitely tied up with the attempt to lessen the number of deaths in the ante and intra partum periods.

Abnormal developments or faulty implantation of the ovum, abnormality of uterine mucosa, disturbance of endocrine function, ovarian or otherwise, are often responsible early in pregnancy. Placental abnormalities are occasional causes and are almost impossible to prevent. Equally unpreventable are deaths from major malformations which are generally due to abnormal germ cells.

Efforts to lower mortality must be directed toward proper prenatal care. This includes proper rest, diet and protection against emotional and physical fatigue. Endocrine abnormalities should be corrected, regular medical examination of course always includes urinalysis and blood pressure evaluation.

Intrapartum anoxia leads as the most common cause of death; whereas toxemia was responsible for but one fatality. Early prenatal care includes accurate pelvimetry and repeated determination of foetal position. When adequacy is questionable, roentgen measurements should be made and when these measurements are definitely below normal, the infant should be removed by cesarean section before the onset of labor. Although birth injuries can never be completely eliminated as a cause of death, improvement in obstetrical judgment and technic will cause a marked reduction.

In the neonatal period, the most frequent single cause of death is prematurity. Anything which prolongs the period of gestation increases the infant's chances of survival. The only salvation for the pre-viable group of premature infants is prolongation of gestation. The methods of decreasing deaths of premature infants are:

1. Prolongation of gestation.
2. Providing proper environmental conditions for the premature infant from the moment of birth.

A premature infant must be very carefully protected; body temperature must be maintained; all sources of infection eliminated and an adequate diet, (preferably breast milk) given. With skill and protection it is possible to raise surprisingly small premature infants.

Death from anoxia was a prominent cause in this group and some of this can definitely be attributed to birth trauma. Death from birth trauma usually occurs in the first few hours and prompt and efficient care should be given to prevent any increase in hemorrhage.

Premature birth takes a higher toll of infant life than any other pediatric condition. It was given as the cause of death of 33,120 infants in 1944, most of whom (32,065), died during the neonatal period. The national neonatal mortality rate from premature births has fallen in the past eleven years, and infants born prematurely in this country enjoyed a 20 per cent better chance of survival in 1944 than those born in 1934. More than one half of the deaths occur during the first twenty-four hours, since this is the most hazardous period. Mortality can be reduced in two ways:

1. Reducing the incidence of prematurity.
2. Improvement in method of care after birth.

The majority of deaths of premature cases occurring during the first twenty-four hours are the result of accidents associated with birth, more often due to trauma and asphyxia. Such mishaps appear only among infants who weigh less than 1500 grams (3 lbs. 5 oz.). In seeking to reduce the incidence of premature birth, we stress adequate prenatal care, prompt attention to untoward symptoms, judicial use of analgesics, protection of the premature infant during labor and adequate neonatal care.

Immediately after birth, the respiratory passages should be freed of mucus by the use of intratracheal catheter; carbon dioxide (5 per cent) and oxygen (95 per cent) mixture should be used and temperature maintained to prevent chilling of the body. Respiration may be delayed because of narcosis of the mother, aspiration of amniotic fluid, interference with blood supply or other cause of respiratory center depression. Adequate care of the infant in the nursery is therefore imperative and includes proper feeding, handling and the prevention of any respiratory or infectious disease.

By these methods we can achieve marked reduction in fetal and neonatal deaths.

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214 Spring Street

MANAGEMENT OF THE CHILD WITH HAY FEVER OR ASTHMA*

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Hay fever and asthma together represent 82 per cent of the allergic diseases of the respiratory tract in children. Hay fever accounts for 44 per cent, bronchial asthma for 38, and allergic rhinitis for 18 per cent. The capacity to develop allergic disease is inherited, and then passed on to future generations. If both parents exhibit allergic symptoms, half of their children will develop allergic disease by the age of 10 and 75 per cent by the age of 30. If only one parent is allergic, half of the offspring will show allergic symptoms by the age of 30.

The symptoms of hay fever occur regularly at certain seasons and are due to pollens in the air at those seasons. The symptoms are the same regardless of the offending pollen.

The early spring season extends from about March 15 to May 15 and the symptoms are due to the tree pollens, most important of which in this area are elm, poplar, ash, beech, birch, oak, sycamore, and hickory. Symptoms are usually mild and frequently do not require treatment.

The late spring season extends from May 15 to early July. Symptoms are due to the late spring grasses: plantain, timothy, orchard, June, red top, and sweet vernal. Pollination is usually not heavy enough to cause symptoms until about May 30 and is largely over by July 15. The most important season is fall, beginning very regularly within a few days of August 15 and extending to the first killing frost about October 1. Symptoms are due almost entirely to giant and dwarf ragweed. A child may have the spring or fall type, or both.

Another possible causative agent is a mold. Molds do not have such definite seasons as the pollens but flourish during spells of warm, damp weather, which means during the summer and fall. Of the numerous species, *Alternaria, Aspergillus, Hormodendron,* and *Penicillium* are probably the most common. (especially *Alternaria)* in this region. Molds must be considered in cases which do not respond well to treatment, do not conform to the usual pollen seasons, or which become worse in damp, muggy weather.

Hay fever can occur as early as one year of age, and at four or five years of age, it is relatively common. A child with a persistent watery nasal discharge in April, June or September, (especially if one or both parents are allergic and the rhinorrhea is accompanied by frequent sneezing) may well have hay fever. If these symptoms recur seasonally each year, it is almost surely hay fever.

The next step is to confirm the diagnosis by skin tests with suitably standardized pollen extracts. The usual strengths are 10, 100 and 1000 protein nitrogen units per cubic centimeter. Tests are given intradermally in the skin of the upper outer arm with 26 gauge 3/8 inch needle, a separate syringe and needle being used for each extract and about 1/40 cubic centimeter being injected. I commonly use the following extracts for routine testing in pollen cases: mixed trees, a combination of timothy and orchard, plantain, and a mixture of dwarf and giant ragweed. All spring pollens do not have to be tested separately, for if a patient reacts to one, he will react to all. In some clinics, timothy alone is used for the testing and treatment of *all* spring pollen cases, but better coverage is obtained with a combination of timothy and orchard. If a test is positive, swelling, redness, and itching occur within fifteen minutes at the site of the injection. The reactions are graded as negative, slight, moderate, and marked. A moderate test exhibits redness and itching; a marked test redness, itching, *and pseudopods.* It is important to grade the test results, for the patient's class (AA, A, B, or C) as well as his

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dosage schedule is determined by his classification. If a patient shows a "marked" reaction (by this definition) to the 10 unit strength, he falls into class "A". If he shows a moderate reaction to the 10 unit strength and a marked to the 100 unit, he is a class "B" case, while if his test is marked only with the 1000 unit strength, then he is class "C". A class "AA" case (exceptional) shows a marked reaction to 1 unit per cubic centimeter. The patient is then treated by a series of hyposensitization injections according to the dosage schedule suitable for his class, provided the tests conform to the season of the patient's symptoms. For example, if a patient has fall hay fever and shows positive tests to timothy and to orchard and to ragweed, he is treated only with the ragweed and *not* with timothy and orchard.

This is not to say that all patients receive injections. Cases that are mild clinically can be helped sufficiently with benadryl and pyribenzamine. They can also seek relief in pollen free areas, such as the White Mountains or along the ocean's edge (if a sea breeze prevails!). Shortly after Labor Day most children have to return to pollen laden areas to begin school and promptly begin to sneeze and lachrymate. From 30 to 50 per cent of all hay fever victims will eventually develop asthma; hence, the prevention of asthma is materially assisted by the energetic treatment of the hay fever by hyposensitization. Alleviation of the patient's symptoms with the anti-histaminics will *not* prevent asthma.

The injections are timed so that the "top dose" is given just before the beginning of the pollen season. Injections are given every four to seven days, and a top dose of 2500 units is rarely exceeded. When the season begins, injections are given every seven to ten days at top level until the season is over, from which time they are continued at intervals of three or four weeks *throughout the rest of the year* until the next pollen season arrives. This is the "perennial" method of treatment, generally considered the most effective and simplest for the patient.

In the injection treatment, especially with the pollens, the physician must *always* be alert to the possibility of a constitutional reaction. Such a reaction is usually due either to giving the patient a larger dose that he can stand, jumping the size of the dose too rapidly, or permitting too long an interval between injections. A constitutional reaction is characterized by the appearance of one or more of the following symptoms: urticaria, wheezing, tightness of the chest, itching of the scalp or palms of the hands, and a frequent hacking

No. Dose	Class AA Marked Reaction to 1 unit per cc.	Class A Moderate to 10 units Marked to 100 units	Class B Moderate to 100 units Marked to 1000 units	Class C Marked to 1000 units
1	2	5	10	10
2	5	10	20	20
3	10	20	40	40
4	20	30	70	70
5	30	40	100	100
6	40	60	200	200
7	50	80	300	400
8	Top dose	100	400	700
9		200	600	1000
10		300	800	1250
11		400	1000	1500
12		500	1250	2000
13		Top dose	1500	2500
14			1750	Top dose
15			2000	
16			2250	
17			2500	
			Top dose	

TABLE I.—SCHEDULE OF DOSES OF POLLEN EXTRACTS ACCORDING TO SKIN TEST REACTIONS

(Doses in protein nitrogen units per cc.)

cough. Proper treatment must immediately be instituted. This consists of applying a tourniquet around the arm above the site of the pollen injection and the subcutaneous injection of 0.25 to 0.30 cubic centimeters of epinephrine hydrochloride 1/1000 above the tourniquet or in the other arm. Symptoms will usually subside in a few minutes and the tourniquet may be gradually loosened.

If the patient cooperates and injections are properly given, results are very satisfactory. It is safe to promise 85 per cent of improvement in 85 per cent of cases. When the patient gets on the once-a-month schedule, it is only a small chore for him to continue monthly injections indefinitely.

ASTHMA

Bronchial asthma occurs with about the same frequency as hay fever. It is a common condition in infancy and childhood. More cases begin in the first year of life than at any other time in the pediatric age group. The common picture is that of an infant several months to a year or two of age who, after two or three days of what appears to be an ordinary upper respiratory infection, begins to breathe more rapidly, suffers dyspnea, wheezes and has numerous sibilant rales in the chest. Hacking cough, nausea, vomiting, and anorexia are often prominent features. Such an attack may last for a few hours up to a few days and recur at intervals of one to several months. Another form of childhood asthma is continuous wheezing in contrast to the current attacks. Such children wheeze mildly and have an infrequent cough most of the time. Wheezing becoming more pronounced during exercise, crying spells, and upper respiratory infections. The management of the two types is essentially the same. If palliative treatment alone is used (in the hope that the child will "outgrow it") spontaneous cure will not result; instead the patient will develop more frequent and more severe attacks which will eventually lead to semi-invalidism.

Other conditions also cause wheezing, cough, and dyspnea in the pediatric age group. These must be kept in mind when establishing the diagnosis. They are:

1. *Enlarged thymus.* Enlargement of this gland is most likely to cause trouble in the first few months of life when asthma is somewhat uncommon, rather than later on when the incidence of the two conditions is reversed. An x-ray of the chest will usually establish the diagnosis, and if enlargement is present, roentgen therapy is indicated.

2. *Foreign bodies.* This possibility must not be overlooked, especially in the one to three year age group when the inhalation and ingestion of foreign bodies is so frequent. A foreign body of vegetable origin, such as a bean or a nut, may produce a wheeze which cannot easily be distinguished from an asthmatic wheeze of the continuous type and not be demonstrable by x-ray. If there is a history of a choking spell, or of the child having played with peas or beans or nuts, the diagnosis of foreign body must be seriously entertained. A chest x-ray may not be of much help unless atelectasis is present when it points strongly to foreign body. If the possibility of foreign body cannot be ruled out, bronchoscopy in indicated.

3. *Laryngotracheitis.* An experienced pediatrician should not have great difficulty in distinguishing acute laryngotracheitis from bronchial asthma. In the former, the child appears more acutely ill and has a higher temperature than in the latter. Also, he usually has both inspiratory and expiratory difficulty while in asthma inspiration is usually easier than expiration which tends to be prolonged and noisy and accompanied by sibilant rales in the chest. Laryngotracheitis responds quickly as a rule to steam, sulfadiazine, and penicillin.

4. *Tuberculosis.* The type of tuberculosis that might cause trouble in diagnosis is enlargement of the hilar lymph glands causing pressure on the trachea and miliary tuberculosis. The tuberculin test, the x-ray, the cough, the temperature curve, and a history of exposure should materially assist in establishing the correct diagnosis.

Bronchial asthma takes two forms: (1) noninfective asthma in which the exciting factors are the inhalants, both seasonal and non-seasonal, foods, drugs, injected substances, and contacts, and (2) infective asthma, in which bacteria or viruses, or their products are the cause. The seasonal inhalants are the pollens described above in the paragraphs on hay fever. The common non-seasonal inhalants are house dust, feathers, dog and cat dander, orris root, wool, kapok, pyrethrum, and the molds, although these by no means exhaust the list. The most troublesome foods are cow's milk, eggs, chocolate, fish, shell fish, tomato, orange, and nuts. The major allergenic drugs are aspirin and the barbiturates. Some substances such as eggs, nuts, mustard, flaxseed, and

beef can apparently cause asthma by absorption through the unbroken skin. Attacks of bronchial asthma commonly commence after ordinary upper respiratory infections, pneumonia, bronchitis, influenza, pertussis and measles, thus attesting to the significant role that both bacteria and viruses play in their etiology.

In the treatment of the acute attack, ephedrine and epinephrine are still the chief drugs in spite of the recent introduction of the antihistaminics. In mild cases mixtures of ephedrine and phenobarbital, plus a cough mixture containing codeine are usually sufficient. In more severe cases, epinephrine 1/1000 hypodermically in doses of 0.2 to 0.3 cubic centimeters followed in a few minutes by 0.2 to 0.5 cubic centimeters of epinephrine in oil 1/500 intramuscularly usually alleviates the attack. Benadryl and pyribenzamine in the dosage of 2 milligrams per pound of body weight per day give more benefit in pollen asthma than in infective asthma where they are almost useless. Unfortunately the latter type is the more prevalent. A new drug which promises to be of value is butanefrine, a substitute for epinephrine. It appears to relieve bronchospasm about as well as epinephrine without the unpleasant side effects of the latter, such as palpitation, apprehension, nausea, and vomiting. The dose is from 0.5 to 0.8 cubic centimeters by subcutaneous injection. Epinephrine 1/100 sprays may be used only in cooperative older children. Aminophyllin 0.25 Grams intravenously is also helpful. In the infective asthma accompanying respiratory infections, I regularly use sulfa drugs and/or penicillin to control the infection, usually with excellent results. The vomiting that so often accompanies acute attacks can usually be controlled with sodium bromide 10 to 20 grains by rectum every four to six hours.

Chief problem in the treatment of bronchial asthma is the prevention of subsequent attacks. This depends primarily upon identifying the offending substances, avoiding those substances where possible, and hyposensitizing the patient to the others. Discovery of the inhalant factors is relatively simple and dependable by the use of intradermal skin tests. Skin tests with food extracts are of little value. The two series of test extracts which I use are given in Table II. In very small children only the most probable reactors are used because of the child's emotional reaction to the use of needles.

TABLE II A—WEAK INHALANTS
(Expressed in protein nitrogen units per cc.)

Tim. and orch.	10
Tim. and orch.	100
Plantain	10
Plantain	100
Ragweed	10
Ragweed	100
Horse ep.	500
Dust	1:10
Feathers	100
Dog ep.	500
Cat ep.	500
Orris	500
Rabbit ep.	500
Wool	1,000
Kapok	1,000
Tobacco	1:10
Pyrethrum	1,000
Flaxseed	1,000
Cottonseed	1,000
Alternaria	1,000
Aspergillus	1,000
Hormodendron	1,000

TABLE II B—STRONG INHALANTS

Tim. and orch.	1,000
Plantain	1,000
Ragweed	1,000
Horse ep.	5,000
Dust conc.	
Feathers	1,000
Dog ep.	5,000
Cat ep.	5,000
Orris	5,000
Rabbit ep.	5,000
Wool	10,000
Kapok	10,000
Soy bean	1:10
Flaxseed	10,000
Cottonseed	10,000
Cocoanut	1:10
Peanut	1,000
Alternaria	10,000
Aspergillus	10,000
Hormodendron	10,000

When skin tests show house dust, feathers, animal danders, or wool, to be the cause, it is essential to eliminate them from the child's environment. The usual instructions given to a mother are to render the child's bedroom as dust free as possible by removing all wool rugs, curtains, and drapes. No rug, (or just a linoleum "rug") is allowed on the floor, and

only washable curtains which are laundered weekly at the windows. Closets and book cases are emptied of all but a few essentials and are kept scrupulously clean. The room must be given a thorough cleaning with a damp cloth or oil mop weekly and a light cleaning daily. Feather pillows and cotton mattresses are best enclosed in allergic-proof encasing; perhaps even better, foam rubber pillows and mattresses are used. The furniture should be of plain wood or metal, not upholstered. These measures assist materially in keeping down the dust and giving the patient relief.

A combination of environmental control as described above and a series of hyposensitization injections is usually necessary. Always investigate the sinuses. In infective asthma the recognition and proper treatment of a hidden focus of infection in the sinuses may make all the difference between success and failure, for chronic sinusitis is by no means rare in childhood. Sinus x-rays and the advice of a competent otorhinolaryngologist can be very helpful.

Treatment with house dust extract and a stock respiratory vaccine is usually necessary in both types of cases. Because of the close association between attacks of bronchial asthma and the common cold, I always stress the importance of vaccine therapy. Sensitized stock respiratory vaccines go a long way toward reducing the incidence of the common respiratory infections and hence the incidence of the asthmatic attacks that accompany them. Where sinusitis exists, an autogenous vaccine made from a culture of the sinus washings is also added. According to the indications of the case, pollen, mixed feathers, dog, or mold extract may be added. The routine usually followed is given in Table III.

The dosage of the pollens, molds, and other inhalants follows the schedule of Class B or Class C cases in Table I. The injections are given at intervals of four to seven days, and, in the case of the pollens and other inhalants, the usual precaution against constitutional reactions must be observed as mentioned previously. Improvement is usually noted after nine or ten injections. After two or three doses at the top level the injections are gradually stretched to every four weeks. The patient continues at this interval for an indefinite period, preferably two or three years. On such a regimen about 80 per cent of cases can achieve 75 to 90 per cent improvement.

TABLE III

Dose No.	House Dust	Stock Vaccine
1	0.1 cc. of 1:10	0.1 cc. of 1:10
2	0.2 dilution	0.2 dilution
3	0.3	0.3
4	0.4	0.4
5	0.5	0.5
6	0.6	0.6
7	0.7	0.7
8	0.8	0.8
9	0.9	0.9
10	0.1 cc. of con-	0.1 cc. of con-
11	0.15 centrate	0.15 centrate
12	0.2	0.2
13	0.25 top dose	0.25 top dose
14	0.25	0.25
15 etc.	0.25 etc.	0.25 etc.

One question that frequently arises in these cases is that of removal of the tonsils and adenoids. Removal of tonsils and adenoids is not a cure-all for bronchial asthma. However, where tonsils are infected and adenoids enlarged, infected, or cause obstruction resulting in frequent attacks of respiratory infections or the aggravation of a sinus infection, their removal appears to be decidedly beneficial, especially in conjunction with the rest of the treatment as outlined. Under these circumstances, early rather than late removal is indicated, to prevent the child from getting unnecessary respiratory infections.

While carrying out this treatment, principles of sound pediatric management must also be observed. This includes a well balanced diet, adequate vitamin intake, rest, proper clothing especially in winter, avoidance of contact with upper respiratory infections, detection and correction of nutritional and secondary anemias, and prompt treatment of respiratory infections which have not been successfully avoided.

The idea that the patient must struggle along under palliative treatment alone is out of date. Especially in the case of bronchial asthma is it important to commence treatment before irreversible changes in the bronchial tree render such treatment less probable of success. This makes the treatment of asthma in childhood a much more hopeful enterprise and enables the physician to strike a note of optimism in his dealings with the parents.

SUMMARY

1. The chief causative factors of hay fever and the proper methods of diagnosis are described.

2. Proper dosage schedules for the effective hyposensitization of hay fever patients are outlined.

3. The etiologic factors in bronchial asthma are discussed and the common methods of specific diagnosis are described.

4. The importance of a positive program of treatment, including environmental control, proper methods of hyposensitization, and sound pediatric measures, is emphasized.

DISCUSSION

Dr. Nathan Schaffer: How about those children who do not respond to the "average" treatment and who finally have to be sent to an allergist for further study?

We, as allergists, consider further factors in diagnosing respiratory allergy in a child. The allergic *facies* in chronic allergy shows a narrowing of the nose and of the chin, a high palate, and crowding of the teeth. The "allergic salute" is most common. This is the rubbing of the palm of the hand in an upward motion over the tip of the nose as the child tries to do away with an almost constant itching sensation. Then there is the wrinkling of the face and nose, and a clucking noise in the back of the throat to try to relieve an itching palate. All these, once seen or heard, are diagnostic.

Nasal smears are also a great help in making a positive diagnosis. The child should blow his nose on a piece of wax paper or a glass slide; the smears are stained and searched for eosinophilia cells; over 5 per cent of these means allergy. This method can be used as a differential diagnosis when the child is in an acute attack. If the attack is a true allergic one, eosinophiles will be present as usual; if it is infection, eosinophiles will have been replaced by polynuclear cells and lymphocytes. By keeping records of counts, success or failure of treatment over the year can be demonstrated.

Inasmuch as 30 to 50 per cent of hay fever victims eventually get asthma, and as asthma is not prevented by the anti-histaminic drugs, even mild cases should be treated by the injection method, being aided if necessary by the antihistaminic drugs.

Besides the obvious constitutional reactions which result from an overdose, one must watch for a sore arm, a feeling of malaise, aching, or loss of energy the day following an injection. These are reactions which will precede a constitutional reaction. The doctor should always ask if any type of symptom manifested itself after the preceding injection before increasing the dose. In this way, you will cut down your constitutional reactions almost completely.

In differentiating allergic asthma from infectious asthma, I consider the following factors. In allergic asthma (asthma due to extrinsic factors such as pollen, dust, or food) the child has the attack of asthma first, followed by fever two or three days later. In infectious asthma, the child starts with symptoms of a cold, has fever, and two or three days later exhibits the asthma. The time relationship between the fever and the onset of the asthma is all important in these two conditions.

The epinephrine nebulizer is excellent to break an attack in all ages of children. The use of aminophyllin suppositories, 3 grains of aminophyllin, and ¾ grain of seconal, will also help. Vomiting will often help to remove the mucous plugs in the bronchi; ipecac helps achieve this end. Three to five drops of iodide three times a day also helps loosen the plugs. In status asthmaticus not helped by any of the conservative procedures as outlined, it may be necessary to bronchoscope the child to remove the mucous plugs. Whenever this is done, the child must be watched carefully, for tracheotomy may be necessary if swelling results from the bronchoscopic manipulation.

I agree with Dr. Nevius that in all cases of infectious asthma, complete otolaryngeal examinations should be made. Large adenoids should be removed. However, in an allergic child, tonsils and adenoids should never be removed during any pollinating season, as the child may become sensitized to the pollen. In those cases with adenoid tissue scattered throughout the posterior pharynx, irradiation with radon seeds or x-ray shrinks the glandular tissue, and the child will have tremendous relief. I have seen children so treated who have had complete relief from asthma for a period of at least two years. The child may have an acute exacerbation of his asthma three to seven days later, which will pass. Radon treatment should only be done by an expert.

When using penicillin by mouth, or aerosol or injection in the treatment of acute infectious asthma, adequate dosage must be obtained. Using aerosol penicillin once or twice a week is worse than useless as the bacteria will become resistant. When administering aerosol, I have the patient use it at home, every four hours, for three to seven days, using a vaponephrin nebulizer, with the hand bulb, or oxygen, as the driving force. Relief usually comes with the second application, but treatment must be maintained or relapses occur.

In specific treatment, I follow a course of injections like the one outlined by Dr. Nevius. I also use another method for rapid desensitization for the acute pollen hay fever or asthma patient, by giving small intradermal injections of pollen extract daily, while building up the subcutaneous injections. This applies only to patients coming into the office during the pollen season.

610 Park Avenue

MECHANISM OF CONGESTIVE FAILURE

Hyman Rosenberg, M.D., Camden, N. J.

There are two schools of thought among cardiologists today concerning the pathogenesis of congestive failure. One of these, the "backward failure" proponents, is led by Tinsley Harrison; the other, the "forward failure" advocates, is led by Stead, Warren and Merrill.

Backward failure is due to damming up of blood in the veins because the incoming blood is not fully pumped out by the failing heart. The mechanical efficiency of the heart decreases and the venous pressure increases. This is based on "Starling's Law of the Heart"[1] in which he showed that as the heart muscle distends (or the chamber dilates) the stroke volume increases, until a certain limit is reached; after that the stroke volume decreases.

Forward failure is, essentially, failure due to reduced volume of blood circulated per unit of time. Therefore, this volume is inadequate for the needs of that period.

Fishberg,[2] a proponent of backward failure, classifies the mechanisms into two main categories:

Hyposystolic: Due to diminished emptying; characterized by left, right or combined heart failure.

Hypodiastolic: Due to diminished diastolic filling. This may arise from mechanical limitation of filling as in pericardial effusion or cardiac tamponade or to abbreviation of diastole as in tachycardia. The hypodiastolic type is the rarer one.

The hyposystolic produces an increase in the size of the failing chamber, while hypodiastolic produces a decrease.

In *backward failure,* the chamber involved begins to fail due to hypertension, aortic insufficiency or stenosis, mitral stenosis, pulmonary disease, etc. The chamber concerned is the predominant chamber since pure failure of one chamber is rare because each one is so dependent on the functional integrity of the others that as soon as one becomes defective in function, the others immediately have an additional load imposed upon them. With the onset of failure, the chamber at first dilates, the heart muscle lengthens and this causes an increase in oxygen consumption.[3]

This stepped up oxygen consumption produces an increase in energy metabolism, which in turn causes ventricular hypertrophy. With a dilated and then hypertrophied chamber, venous pressure is maintained at approximately normal level, arterial pressure goes up a little, cardiac output (which falls a little with dilatation) is returned to normal, and the heart goes on as before. This process continues over and over—dilatation, fall in output, hypertrophy, increase in output. With each increment of dilatation, the venous pressure rises slightly and is not noticeable until it reaches the point where it becomes permanently elevated, and the cardiac output goes down. With the permanent increase in venous pressure, there is an increase in the hydrostatic capillary pressure with a resultant exudation of fluid into the interstitial spaces of the lungs, liver, legs, etc.; i.e. edema. Fishberg[2] says that failure of elevation of venous pressure at an early stage may be due to the following:

A. Filling out of veins with blood. Veins which normally are half filled must first be filled and distended before there is an increase in venous pressure.

B. The liver and portal tributaries will pool blood before failure is sufficiently far advanced to fill the veins.

In addition to increased venous pressure as a main cause of cardiac edema, the *backward failure* theorists say that there is concomitant decrease in the colloid osmotic pressure of the blood and increased capillary permeability.

The *forward failure* adherents (and more men are turning to this mechanism) start

1. Starling, E. H.: The *Linacre Lecture*: The Law of the Heart, London, (1918).
2. Fishberg, A. M.: *Heart Failure,* 2nd Ed., Philadelphia, Lea and Febiger (1940).
3. Starling, E. H. and Vischer: Jour. Physiol., 62:243, (1927).

their pathogenesis with a decreased output of the involved chamber. And it is with this first and most important phase of the problem that the other school takes issue. Harrison [4] makes the following observations:—The range and average values for cardiac output are similar for compensated and decompensated patients. In a patient with congestive failure, clinical improvement and disappearance of the congestive phenomena may be associated with increase or decrease or no change in cardiac output. On the other hand, Merrill [5] has demonstrated that the cardiac index in congestive failure is below the average; and in many cases, below the lower limits of normal. This index is the minute volume output of the heart per square meter of body surface and is normally 2.3 to 4.1 with an average of 3.3. Cardiac output is increased with exercise. A normal individual with a certain type of exercise will increase his cardiac output by 2.07 liters per minute, while an individual with compensated heart disease will increase it 1.21 liters per minute, and a decompensated individual—0.75 liters per minute. Since the oxygen requirements of the tissues during exercise are much greater than represented by this minimal rise in cardiac output, the individual develops exertional dyspnea as the first symptom of failure.

As the result of the reduced cardiac output, there is diminished flow to various organs, but the organ most involved is the kidney, which normally receives 20 to 25 percent of the cardiac output. To illustrate this, studies have shown that the cardiac output rarely decreases as much as 50 per cent of normal, but the renal blood flow is frequently reduced to 20 per cent of normal. Merrill [5] showed that despite this diminished renal blood flow, the tubules retained their normal concentrating power. With this decrease in renal blood flow, there is a reduction in glomerular filtration,[6] affecting the sodium ion predominantly but without impairment of sodium reabsorption by the tubules (normal concentrating power). This diminished filtration with normal reabsorption causes sodium retention and was proved by radioactive sodium studies [7] which revealed marked impairment in sodium excretion. This has been disputed by Farnsworth,[8] who found normal filtration but marked increase in tubular reabsorption of sodium. When patients in failure are given saline intravenously they excrete only 30 per cent as much as a normal individual.[9] Another possible cause for sodium retention, other than diminished filtration, is an excess or overactivity of the adrenal cortical hormone.[10] However, this has not been proved.

Glomerular filtration is reduced to a less extent than is renal blood flow, resulting in a rise in filtration fraction, suggesting high intraglomerular pressure from efferent arteriolar constriction.[5] This arteriolar constriction is reflex from decreased blood flow to the kidney and the resultant renal ischemia produces renin. Merrill [11] found renin in the renal vein during failure and postulates that its presence prevents a fall in blood pressure.

The sodium retention which takes place in the interstitial spaces is accompanied by a retention of water, so that there is an increase in extra cellular fluid. This is manifest by a gain in weight, the first sign of congestive failure.[12] It is only after the extra cellular fluid volume is increased that the venous pressure increases and it is the site of the increased venous pressure that produces the symptoms. There are at least two conflicting reports in the literature, both of which support their contention by clinical study. Warren and Stead [12] took two patients in failure, brought them out of it with the usual method of therapy, and then, by omitting mercurials and adding salt, showed that the weight of the patient (as well as the extra cellular fluid volume) rose long before the venous pressure. On the other hand, Reichsman and Grant [13] took patients with inactive rheumatic heart disease in failure and compensated them, and then omitted digitalis. In this instance, the venous pressure rose before the weight gain and edema. I believe we can explain this apparent discrepancy by the different mode of action of these two drugs. Digitalis increases the cardiac output while mercupurin blocks tubular reabsorption without increasing cardiac output.

It is difficult to remove all the excess extra cellular fluid from patients with congestive

4. Harrison, T.: *Failure of the Circulation*, 2nd Ed., Baltimore, Williams and Wilkins Co., (1939).
5. Merrill, A. J.: Journal of Clinical Investigation, 25:389 (1946).
6. Mokotoff, R., Ross, G., Leiter, L.: Journal of Clinical Investigation, 27:1, (January 1948).
7. Reaser, P. B. and Burch, G. E.: Proceedings of the Society for Experimental Biology and Medicine, 63:543, (1946).
8. Farnsworth, E. B.: American Journal of Medicine, 4:338, (1948).
9. Futcher, P. H. and Schroeder, H. A.: American Journal of the Medical Sciences, 204:52, (1945).
10. Raab, W.: Archives of Internal Medicine, 68:713, (1941).
11. Merrill, A. J., Morrison, J. L. and Brannon, E. S.: American Journal of the Medical Sciences, 210:468, (January 1948).
12. Warren, J. V. and Stead, E. A.: Archives of Internal Medicine, 73:138, (1944).
13. Reichsman, F. and Grant, H.: American Heart Journal, 32:438, (1946).

failure. This remains high even when we are unable to demonstrate edema. If you give such a patient excess salt, the venous pressure may rise concomitantly with the plasma volume and weight.

Cardiac output studies are usually done on patients while at rest and are therefore usually normal, since failure is first manifest on effort. Therefore, bed rest alone is usually sufficient therapy in early failure. In moderate failure, just the addition of sodium in some form to the diet will produce sodium retention, resulting in an increase in extra cellular fluid and therefore causing an increase in the severity of symptoms. In failure due to thyrotoxicosis, anemia and beri-beri, the patient may have normal or increased cardiac output at rest. This probably is due to the fact that they have increased demands for blood and therefore need a cardiac output far above normal. However, all these patients have a decreased renal blood flow. A communication by Corcoran and Page [14] tends to disprove this since they found normal blood flow in thyrotoxicosis.

In patients with severe kidney disease, there is diminished renal blood flow. As a result, most of them have edema; if not, they have uremia which produces severe vomiting, with resultant loss of sodium and failure of intake of sodium.

In shock, there is a decrease in renal blood flow, but it is usually of too short a duration to cause sodium retention of any degree. If it persists, edema will result.

Increase in extra cellular fluid causes an increase in plasma volume and therefore hemodilution which is mirrored in a reduced hematocrit and plasma protein.[12] The latter acts as a stimulant to the formation of plasma proteins to raise the protein concentration. With a diminution in extra cellular fluid by therapy, there is a concomitant reduction in plasma volume and the excess protein is removed from the plasma by the homeostatic mechanism of the body.[15] In contradistinction to this explanation of increased blood volume, Fishberg [2] states that the increased blood volume, which everybody agrees is present in congestive failure, is due to the volume of blood contained in the dilated heart and in the engorged circulation, back of the failing chamber. This increase, he says, can be mainly plasma or mainly cellular elements, secondary to arterial anoxemia.

Following out the course of backward failure we would expect that an increase in venous pressure would cause fluid to leave the blood stream and therefore should tend to cause hemoconcentration. However, it has been shown that hemodilution is actually present.

In considering types of edema, other than cardiac, we find other pathogenetic mechanisms involved. In nutritional edema, there is a lowered osmotic pressure due to a critical decrease in plasma proteins, thus causing fluid to pass from the blood stream to the tissues. In burns, there is an increase in capillary permeability. These two mechanisms cause a secondary decrease in urinary output which is not dependent on change in renal function. The *backward failure* theorists state that a decrease in urinary output is due to the increased extra cellular fluid.

The increased capillary permeability to plasma proteins is disproved by finding less than 0.5 grams per cent of protein [16] in the edema fluid.[17] Anoxemia is supposed to cause increased capillary permeability. This is disproved by the fact that patients with severe emphysema and cyanotic congenital heart disease with an oxygen unsaturation of 40 to 60 per cent have no edema unless in failure;[18] anoxemia does not cause an increase in capillary permeability as shown by the fact that the protein of the edema fluid is less than 0.5 grams per cent. Decrease in plasma proteins can cause edema as shown by famine edema. However, this is only an occasional factor in constructive pericarditis, and then only because of concomitant severe liver damage. Faulty lymphatic return as a cause is disproved by the low protein content of the edema fluid since lymphatic obstruction produces a high protein content.

Therefore, we come back to the kidney and faulty elimination of sodium. A patient tak-

14. Corcoran, A. C. and Page, I.: Journal of Clinical Endocrinology, 7:801, (1947).
15. Seymour, W. B., Pritchard, W. H., Longely, L. P. and Hayman, J. M.: Journal of Clinical Invest., 21:229, (1942).
16. Bramkamp, R. G.: Journal of Clinical Invest., 14:34, (1935).
17. Warren, J. V. and Stead, E. A., Jr.: Journal of Clinical Invest., 23:283, (1944).
18. Fahr, G. and Ershler, I.: Annals of Internal Medicine, 15:798, (1941).

ing a low sodium intake will not retain water. The sodium content of the average diet is sufficient to cause retention in a patient with decompensated heart disease.

The *backward failure* advocates explain the increase in venous pressure on the basis of the damming up of blood behind a failing chamber. Starr [19] has shown in studies after death, that the venous pressure remains elevated despite the abscence of the pumping force from either the right or the left ventricle. This is more readily explained, therefore, on increased blood volume. Further proof of this is the reduction in venous pressure brought about by the reduction in blood volume as a result of therapy. However, a local increase in venous pressure does determine the site of edema. For instance, in a normal individual, local venous pressure is increased in any region lying below the heart level, and the further below the heart, the higher the venous pressure. Therefore, a short person with congestive failure might have a lower venous pressure in the ankles in the upright position than a tall person without failure.[20] Paroxysmal nocturnal dyspnea is explained on this basis. With a failing heart and an increased extracellular volume the assumption of the lying position places the lungs below the level of the heart and therefore the local site of increase of venous pressure causes the presenting symptoms to be pulmonary in nature.

This mechanism, however, does not explain the onset of acute failure in which sodium retention and increased extracellular fluid have no time to occur. This is more likely due to a sharp decrease in cardiac output which produces an increase in vascular tone either reflexly or by renin.[12] This affects veins as well as arteries and causes an increase in venous pressure, although not as high as seen in congestive failure.

Why does the heart stop beating in a patient with congestive failure? As the untreated cardiac progresses deeper into failure, the heart continues to dilate in order to make available enough energy to keep up its expected stroke output. This energy output does not keep up with the degree of dilation so that finally the amount of energy liberated is insufficient to keep the heart work near normal. Therefore, the cardiac output drops and the blood pressure begins to fall resulting in decreased flow to the coronaries. With the decreased coronary flow, there is increased anoxemia of the myocardium and a decreased supply of energy materials (glucose), either of which can cause ventricular fibrillation and/or asystole.[21]

In congestive failure, arterial pressure tends to remain normal despite the decreased cardiac output for the following reasons:

1. Peripheral vaso-constriction, (possibly related to renin and definitely due to a reflex) initiated by the fall in cardiac output with subsequent diminished stimulation of the carotid sinus and aortic arch receptors.

2. Abbreviation of diastole, caused by the usual accompanying tachycardia. As a result, there is less time for the blood to flow out of the arteries.

3. Changes in the composition of the blood. In acute left ventricular failure with acute pulmonary edema, there is acute anoxemia and carbon dioxide retention which causes stimulation of the vasomotor center, resulting in peripheral vaso-constriction.

4. Slowing of the blood flow stimulates the vasomotor center also.

5. Increased venous pressure causes increased peripheral resistance.

What causes *exertional dyspnea?*

1. Impairment of ventilation of the lungs due to pulmonary engorgement. When the vital capacity is reduced to 80 per cent of normal, dyspnea develops on moderate exertion; when it is reduced to 60 or 65 per cent, dyspnea develops on slight exertion; and when it drops to 40 or 45 per cent, dyspnea is present at rest.[21] Hydrothorax, ascites and hepatomegaly also interfere with respiratory motion. 2. Changes in the chemical composition —anoxemia, carbon dioxide retention and accumulation of lactic acid resulting from inadequate aeration of the blood in the lungs and/or slowing of blood flow through the tissues stimulates the respiratory center and sensitive areas in the carotid sinus and aorta so as to increase ventilation.

3. Slowing of the blood flow through the respiratory center stimulates it.

4. Engorgement of the systemic veins reflexly stimulates respiration.

5. Fall in blood pressure in the aorta and carotid sinuses reflexly stimulates respiration.

6. Distention of the pulmonary capillaries reflexly increases the rate and volume of respiration.

19. Starr, I., Jr.: Am. Journal Med. Sc., 199:40, (1940).
20. Smirk, F. H.: Clinical Science, 2:317, (1936).
21. Watson, C. J.: *Outlines of Internal Medicine*, 5th Ed., Dubuque, (1947).

7. Increase in basal metabolic rate increases the need for oxygen. BMR is elevated in failure due to increased work of the muscles of respiration. This is secondary to the pulmonary engorgement which produces pulmonary rigidity, requiring more work to overcome it.

Paroxysmal dyspnea, a symptom of left ventricular failure, is a manifestation of pulmonary engorgement, due to the lying-down position, etc. In addition, there is a decreased sensitivity of the nervous system while asleep, which allows engorgement to attain a higher degree than when awake. The rarity of this phenomenon in mitral stenosis has never been explained.

Cheyne-Stokes breathing is caused by any one or combination of the following:

1. Oxygen deficiency.
2. Decrease in carbon dioxide content of arterial blood.
3. Diminution in sensitivity of the respiratory center.
4. Increase in intracranial tension, which produces respiratory periodicity indirectly through the intermediary of cerebral circulatory periodicity.
5. Decrease in cerebral blood flow.

The pathogenesis of *cyanosis* is briefly as follows:

1. Deficient oxygenation in the lungs due to engorgement.
2. Increase in the reduction of oxygen in the capillaries due to slowing of the blood stream with a greater capillary bed.
3. Distention of the venules and venous ends of the capillaries.

The development of *hydrothorax* is explained as follows:

The pleural veins drain into the superior vena cava and pulmonary veins. In pure right or left failure, hydrothorax rarely occurs. But with combined failure, and resultant engorgement of the superior vena cava and the pulmonary veins, there is an increase in the venous pressure in the pleural veins resulting in transudation into the pleural cavity.

SUMMARY

The mechanism of congestive heart failure has been discussed from both the "backward" and "forward" viewpoints. Despite prolonged research into this problem, much more has to be done, and various points need to be ironed out before the mechanism is fully understood.

A few of the symptoms of cardiac failure have been presented with an attempt at their physiologic explanation.

318 Cooper Street

NATIONAL CONFERENCE ON MEDICAL SERVICES
PALMER HOUSE, CHICAGO, FEBRUARY 6, 1949

All physicians welcome

9:30 a.m.—Address of the president—E. F. Sladek, M.D.

9:45 a.m.—Legalized Medical Research—Chris J. D. Zarafonetis, M.D., University of Michigan, and George Wakerlin, M.D., University of Illinois.

10:50 a.m.—Progress of the World Health Organization—Frank Calderone, M.D., Director, American Office, World Health Organization.

11:05 a.m.—Progress of the World Medical Association—Creighton Barker, M.D., Connecticut State Medical Association.

11:20 a.m.—Medical Program of the United Mine Workers of America Welfare and Retirement Fund — Warren F. Draper, M.D., Executive Medical Director.

1:00 p.m.—The A.M.A. puts on its Fighting Togs.

2:00 p.m.—What's Happening in Washington — James D. Boyle, United Public Health League.

2:40 p.m.—Panel Discussion on Graduate Education—

(a) Responsibility of Medical Schools in Continued Postgraduate Education of the Doctor — George N. Aagaard, University of Minnesota.

(b) Function of the State Medical Society in Postgraduate Work—C. W. Smith, M.D., Harrisburg, Pennsylvania.

(c) Survey Findings on Specialization —Harold I. Goldman, M.D., Denver, Colorado.

4:00 p.m.—Can Hospitals Legally Engage in the Practice of Medicine?—Wilbur Bailey, M.D., Los Angeles.

DICUMAROL POISONING: REPORT OF A CASE*

Irving L. Applebaum, M.D., Newark, N. J., and Philip Shulman, M.D., East Orange, N. J.

Reports [1] on the toxic effects of dicumarol have been abundant recently in both the foreign and American literature. Most of these cases have been incorporated in large series studied in various institutions under properly controlled conditions. There have been but few reports, however, on toxicity resulting from the indiscriminate use of dicumarol where facilities for prothrombin time determination were not employed. In a review of the literature we have been able to find only six such reports, four in the foreign literature. Shlevin and Lederer [2] described a fatal case of hemorrhage due to dicumarol intoxication. The patient reported by Draper [3] bled after self-medication with the drug. In an instance cited by Thorsen,[4] a patient in England was mistakenly given dicumarol by the pharmacist, the prescription having called for another drug. Thorsen [4] also described three cases of hemorrhage resulting from unregulated dicumarol administration which had been reported in the Swedish literature.

CASE REPORT

This was the first Newark Beth Israel Hospital admission of a 55 year old white male complaining of severe abdominal pain of two days' duration. Past history was negative except for a migraine of 30 years' duration.

Present illness started three weeks before admission when he had a "cold" and developed right parasternal and precordial pain radiating down into the epigastrium. His physician took an electrocardiogram and told the patient that he had a "clot in his heart". He was advised to remain in bed. He was given two prescriptions, one for tablets to be taken for chest pain, the other for capsules each containing 100 milligrams of dicumarol to be taken: three the first day and one daily thereafter.

Pain gradually subsided over the following two weeks. Four or five days before admission he noticed that his urine was darker than normal. The day before admission he developed severe bilateral lower quadrant abdominal pain radiating around to the back, especially marked in the upper right lumbar region. The pain was described as sharp and knife-like, present at rest, but greatly aggravated by body movement, accompanied by nausea, and (on one occasion) by vomiting.

On admission we found a thin but well-developed 55-year-old man who appeared to be in acute distress. Rectal temperature was 100.6° F. Head, ears, nose, throat, fundi, heart and lungs were normal. There was a small linear cut (due to a shaving accident five days before) just below the chin; blood could easily be expressed from this laceration. Abdomen was board-like throughout and tender. Tenderness was also elicited in both flanks and over the right costo-vertebral angle. Blood pressure was 130/80. Except for a deformity (due to an old fracture), extremities were normal.

Peripheral artery pulsations were palpable bilaterally and were equal. The reflexes were active and equal bilaterally. There were no pathologic reflexes.

Laboratory data on admission were: hemoglobin 70 per cent (Sahli); white blood cell count 11,000 per cubic millimeter with 85 per cent polymorphonuclear leucocytes of which 10 per cent were stab forms, and 15 per cent lymphocytes. Coagulation time (Lee-White) no clot formed in 20 minutes; bleeding time (Duke): 55 seconds; prothrombin time (Smith bedside method): 5 minutes, 54 seconds (5 per cent). The blood sugar was 83 milligrams per cent and the blood urea nitrogen was 22. Electrocardiogram was normal except for a flattening of the T-wave in CF,[6] there being no evidence of recent or old infarction. X-rays of the chest and abdomen were negative. A urine specimen voided shortly after admission was port wine in color and microscopically full of red blood cells.

It will be recalled that this patient had been taking dicumarol in 100 milligram capsules. He had taken three the first day and thereafter,

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1. See, for example, papers by Bingham, J., Meyer, O., and Pohle, F.: American Journal of the Medical Sciences, 202:563 (1941), by Barker, N., Butt, H. and Bollman, J.: Journal of the American Medical Association, 118:1003 (1942), by Allen, E. V.: Journal of the American Medical Association, 134:323 (1947), by Allen, E. V.: *et. al.*, Journal of the American Medical Association, 120:1009 (1942), by Wright, I and Prandoni, A.: Journal of the American Medical Association, 120:1915 (1942), by Allen, A. W.: *et. al.*, Journal of the American Medical Association, 133:1268 (1947) and by Barker, N. W.: *et. al.*, Surgery, 12:207 (1945).
2. Shlevin, E. L. and Lederer, M.: Annals of Internal Medicine, 21:332 (1944).
3. Draper, A. J.: Journal of the American Medical Associaton, 136:171 (1948).
4. Thorsen, G.: Lancet, 253:420 (1947).

for thirteen days, at least one a day. On two days, he had taken two capsules each. The man thus had swallowed an aggregate of at least 1800 milligrams of dicumarol.

As soon as we had determined the prothrombin activity (5 per cent), he was given 60 milligrams of vitamin K (as synkayvite) intravenously and he received a transfusion of 500 cubic centimeters (a pint) of whole blood. Five hours later, the same vitamin K dosage was repeated. At the same time, he was placed on oral vitamin K (5 milligrams, four times a day). By the next morning, prothrombin activity was 21 per cent. He was then given another 60 milligrams of vitamin K in divided doses.

His stools were never grossly bloody, but for two and one half weeks were strongly positive for occult blood. Thereafter and until discharge they were "slightly positive". For one week after admission his urines were grossly bloody. Starting on the sixth hospital day, urines began to lighten and by the twelfth day urines were negative except for a few red blood cells per high power field in centrifuged specimens.

On admission there were no skin hemorrhages, but the following day when his prothrombin activity was reported as 21 per cent, he developed a large ecchymotic area over the left shoulder which gradually enlarged over the course of the next four days despite "adequate" prothrombin activity. Three days after admission purpuric spots appeared over the dorsa of both feet. Because the skin hemorrhages continued to enlarge, he was given rutin, 40 milligrams three times a day from the fourth through the eighth hospital days.

His erythrocyte count was 4,300,000 per cubic millimeter with 94 per cent hemoglobin on the second hospital day after transfusion. It reached a low of 3,250,000 and 86 per cent hemoglobin on the eighth hospital day. By the day of discharge (twenty-two days after admission) it had risen to 4,410,000 with 86 per cent hemoglobin.

The blood urea nitrogen, which was 22 milligrams per cent on admission, fell to 10 by the seventh hospital day. Five days later a serum non-protein nitrogen was reported as 57 milligrams per cent. This test was repeated on the eighteenth hospital day when it was 48. In a casual specimen, free of blood cells, he concentrated up to 1.025. A urea clearance showed 113 per cent of maximum clearance.

Liver function studies were performed during the first week of his hospital stay and were reported as follows: cephalin flocculation plus minus in 48 hours; total serum protein 7.5 Grams per cent; albumin 4.6 Grams per cent; globulin 2.9 Grams per cent; icteric index 11; Van den Bergh direct-immediate negative; bromosulfalein test—no dye present in the blood at the end of thirty minutes.

Three days after admission, abdominal pain had completely disappeared, and the remainder of his hospital stay was uneventful By time he was ready for discharge, the skin hemorrhages were subsiding. He was discharged twenty-two days after admission.

COMMENT

Despite the numerous reports in the literature on the effects and toxicity of dicumarol, there is no universal agreement on the desired level of prothrombin activity to be attained. Allen [5] recommends keeping the prothrombin percentage between 10 and 30. At the Lahey Clinic,[6] prothrombin activity is maintained between 50 and 60 per cent. Controversy exists, furthermore, as to whether prothrombin time should be reported in seconds or converted to percentage [7] of prothrombin activity.

There is one point, nevertheless, upon which there is complete accord, and that is that *dicumarol should never be administered without regulation by prothrombin determinations.* Even with this regulated administration, bleeding will occur in a small proportion of cases. Allen [5] surveyed almost two thousand postoperative patients who had been given dicumarol under careful regulation. Minor hemorrhage had occurred in 3 per cent, and major bleeding (usually from operative wounds) in 2 per cent.

5. Allen, E. V.: Journal of the American Medical Association, 134:323 (1947).
6. Evans, J. A. and Dee, J. F.: New England Journal of Medicine, 238:1 (1948).
7. Shapiro, E. and Weiner, M.: Journal of the American Medical Association, 136:418 (1948).

The dangers of indiscriminate use of dicumarol have been adequately stated by Allen.[5] "It cannot be too strongly emphasized that administration of dicumarol must be based on the value of prothrombin in the blood. Any other program may lead to disaster from hemorrhage or to inadequate control of coagulation. Identical amounts may produce widely dissimilar effects on prothrombin when administered to different persons. And the prothrombin of the same person may be affected dissimilarly by the same amount of dicumarol given on one or more occasions."

For the management of hemorrhage resulting from dicumarol overdosage, the intravenous administration of large doses of a vitamin K preparation is generally recommended, and, where bleeding is excessive, transfusion with whole blood[9] is indicated. With respect to the relative efficacy of the various vitamin K preparations, it has been reported[8] that vitamin K^1 oxide is markedly superior to menadione bisulfite and synkayvite.

In the case we have reported a patient was given dicumarol without a single prothrombin time determination. The dangers of the drug and the toxic signs to be looked for were not explained to him. It is worthy of note that on admission this man presented a board-like abdomen. Before his history was taken, an acute surgical abdomen was considered.

In this case there were no skin hemorrhages on admission, but the following day when the prothrombin activity was 21 per cent a large ecchymotic area appeared over his shoulder and continued to enlarge despite an increase in prothrombin percentage to over 40. Even when the prothrombin activity had increased to 100 per cent, the urines were still grossly bloody, although less intensely than on admission.

CONCLUSION

1. A case has been reported of dicumarol intoxication in a man treated at home without prothrombin time determinations.

2. Chief findings of dicumarol toxicity were gross hematuria, severe abdominal pain (with a board-like abdomen) and hemorrhage into the skin. He responded satisfactorily to immediate treatment with intravenous vitamin K and whole blood transfusion.

3. This case together with the previous reports in the literature indicates that the slight danger of hemorrhage which normally exists when prothrombin times are determined daily is immeasurably enhanced when dicumarol is administred without regulation by prothrombin activity determinations.

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8. James, D. F.: *et. al.*, American Journal of Medicine, 4:455 (1948).
9. Cromer, H. E. and Barker, N. W.: Proceedings of the Staff Meetings of the Mayo Clinic, 19:217 (1944).

TUBERCULOSIS STATISTICS

Current statistical data on tuberculosis mortality rates are not an index of current infection and morbidity. Nor, in fact, are they a measure of the effectiveness of current control efforts. They are merely the expression of the relative condition or state of these factors at some time in the recent past. In similar fashion, we may assume that the tuberculosis death rate of the future will reflect the present universe of environmental control and human resistance and susceptibility. Francis J. Weber, M.D., Ed., Pub. Health Rep., (1948).

OPPORTUNITIES FOR PHYSICIANS

The Veterans Hospital, Lyons, New Jersey, is offering unusual opportunities for part-time work to physicians in northern New Jersey. The hospital is in Somerset County, easily accessible by good roads, from all parts of New Jersey. Physicians willing to participate in this program may secure part-time employment without interference with their private practices. Arrangements are on the basis of 20 to 30 hours per week which will be equivalent to 50 to 75 per cent of the regular salary. The pay scale depends on the training and qualifications of individual physicians. Specialist training is not required. For information, apply to Manager, Veterans Hospital, Lyons, New Jersey.

MUMPS ENCEPHALITIS

REPORT OF A CASE PRESENTING SOME UNUSUAL FEATURES

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Many cases of encephalitis, due to acute infectious disease, are by the nature of the condition, impossible of specific diagnosis. This would have been true in the following case had not the diagnosis been indicated by coincidence.

Joyce and Janet are identical white twins. On January 23, 1940, at the age of four months both girls contracted mumps from an older brother. Both patients suffered from bilateral acute parotitis but had only minor involvement of the sublingual salivary glands.

Subsequent growth and progress of these twins was normal, except that in December, 1941, Janet had an acute infection with a temperature of 105, cough, a few scattered rales, but no signs of consolidation. The fever subsided in two days. During the height of the fever she was in a pre-convulsive state but had no actual convulsion. However, on December 15, Joyce had a convulsion and was admitted to the hospital where she developed a lobar pneumonia. At this time she had a secondary anemia of 60 per cent hemoglobin which responded to iron therapy. In October 1940 she had whooping cough, and in May 1942 she had measles.

On January 23, 1946, Janet, (then six and a half years old), contracted mumps at school. This second attack was similar to the first, involving both parotid glands.

Twenty-four days later, her sister, Joyce had a temperature of 102, a dry hacking cough, red throat, and a frontal headache. There was nothing in the physical examination to indicate anything more specific than an upper respiratory infection of the acute type. The next day, she had a slight stiffness of the neck, and tenderness, and pain on flexion of the lower spine. The headache persisted, her temperature rose to 103, and she was admitted to the hospital. The admission note states that the throat was moderately congested and the neck resisted full flexion. The spine was stiff and tender on flexion. There was no retraction of the head or opisthotonus. Chief complaint was frontal headache and pain in the eyes. Kernig's sign was negative. There was tenderness in the lower left quadrant of the abdomen. A provisional diagnosis of meningitis or mumps encephalitis was made. The spinal fluid was clear and under increased pressure. Cell count was 85 per cubic millimeter after treatment with 2 per cent acetic acid. The differential count was 82 per cent lymphocytes and 18 per cent polymorphonuclear cells. On direct smear (gram stain) no organisms were seen. Culture—(tryptose broth, blood agar, thioglycollate broth) showed no growth in 48 hours. Total protein was 80 milligrams per 100 cubic centimeters, sugar was 76.

On the following day the lumbar puncture was repeated. The fluid showed 285 cells, all lymphocytes. Total protein was 72, sugar 60, chlorides 685. Smear and culture were both negative. Blood showed 10.6 grams of hemoglobin, red cell count, 4,500,000; white cell count 5,500; polymorphonuclears 64; lymphocytes 35; monocytes 1. The urine was cloudy, straw colored, acid, specific gravity 1.015, faint trace of albumin, sugar negative; 4 white blood cells per field, red cells not seen, crystals not seen. Subsequent blood count and urine analysis were essentially the same. Course in the hospital was uneventful. Temperature reached 104 on February 19. She was given penicillin 50,000 units every four hours. This was continued for three days. Temperature dropped promptly to 99.4 on the evening of February 19 and rose to 101.6 the next day, and then dropped by lysis to normal on the 22nd. On the 27th she was discharged.

Today, 29 months after discharge from the hospital, the patient shows no residual effects. Her progress, both mental and physical, has paralleled that of her twin sister.

The assumption that this child's illness was due to mumps encephalitis seemed justified by the circumstances under which it developed. However, the recent work of Enders, Cohen and Kane* on the complement fixation test for mumps had just come to my notice and it seemed to me that this was a case in which the test would be valuable. Dr. Kane agreed with me and was kind enough to test samples of blood from both of these children. These tests showed that both children "have had a recent infection with the mumps virus".

SUMMARY AND CONCLUSIONS

A report is made concerning identical twins who: (1) had mumps with involvement of the salivary glands at 4 months of age. (2) At 6 years of age, both twins showed clinical evidence of a second infection with the mumps virus, in one case, involving the salivary glands and in the other a meningoencephalitis. (3) Complement fixation tests demonstrated that this recent illness was due to mumps virus in both cases.

* Enders, J. F., Cohen, S. and Kane, L. W.: Journal of Experimental Medicine, 81:119 (Jan. 1945).

CONCLUSIONS

A. Mumps occurs in infants less than four months old if the exposure is adequate.

B. One attack of mumps does not always induce complete immunity to a second attack of mumps parotitis nor to mumps encephalitis.

C. Mumps encephalitis occurs independently of (and in the absence of) demonstrable mumps parotitis.

21 Trinity Place

DECREASE IN THE ATTACK RATE OF SYPHILIS

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A decrease has occurred in the number of new patients in syphilis clinics throughout the state. Does this mean that fewer infections are being acquired? Or does it mean that the combination of favorable economic conditions and the short period of treatment with penicillin, as compared to the older methods of treatment, have made it possible for patients to secure private medical care?

We asked practicing physicians to express their opinions and more than 1500 replied. This is a brief summary of their opinions; it also gives me an opportunity to thank them for answering "another questionnaire". Most of the physicians who filled in the questionnaire stated that they were seeing fewer cases of early syphilis. This is another of the straws in the wind which give hope that progress is being made in New Jersey in the long fight against syphilis.

In summarizing the 1542 questionnaires that were returned, 564 were not tabulated. On these the doctors had written statements such as "do not treat syphilis," "refer cases to another physician," "have not seen a case for years". In addition, there were 54 who did not answer the question listed below but did give useable information on another question, leaving 924 who expressed opinions as summarized in Table I below.

Effort was made also to find out how many physicians have substituted penicillin for the older drugs in the ambulatory treatment of early syphilis. Results of this inquiry are shown in Table II.

With the traditional conservatism of the profession, most practitioners still cling to arsenicals and bismuth. The Division of Venereal Disease Control has, therefore, continued to supply these to physicians, upon request. It seems probable, however, in the light of the newer knowledge of the value of penicillin alone in neurosyphilis that arsenicals and bismuth will be used less frequently as an adjunct to penicillin even in the older cases of syphilis. Reports of research workers seem to confirm our early hope that the non-toxic penicillin can be substituted (with a high rate of cure) in all classifications of syphilis for the more toxic older forms of treatment.

TABLE I

	Increasing	Decreasing	Same	Total
Number of early cases of syphilis (less than one year) in my private practice seems to be:.....	29	572	323	924

TABLE II

	Penicillin only	Ars. and Bi. only	Combination of both	Total
For early syphilis (less than one year) my usual method of ambulatory treatment is:	126	118	625	869

STATE ACTIVITIES

THE CASH SICKNESS BENEFITS LAW*

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Compensation benefits, whether workmen's compensation, unemployment compensation, sickness or disability benefits, are based upon our wage system. For anybody to pick up any kind of compensation benefits in this state under the three laws, it is necessary for him to have been engaged in "covered employment". The amount he gets when he becomes unemployed bears a direct relationship to the amount he earned while working. None of these three programs has been based upon need or want. It is a program that has been superimposed upon our established wage system. The amount you pick up when unemployed bears a direct relation to the amount you earned when you were employed. Of course, there has been, from federal sources and other places, an attempt to infuse into these programs the element of need. For instance, if you go to the District of Columbia, in Washington, you might know two workers who earn the same amount of money; both are laid off at the same time. If one man happens to be single and a boarder and the fellow next to him happens to be married, with three children, they both get the same basic compensation; but the man with three children gets supplementary compensation because he has three minor children dependent upon him. That isn't so in the state of New Jersey.

When a girl comes to your office and says: "I see by the paper that you advertised for a nurse, what do you pay?" You do not say to that girl: "What are your family circumstances? How much do you have in the bank? Any doctor bills unpaid? Any grocer bills unpaid?" No. You say: "This job pays thirty-five dollars a week; that's what I can get a competent girl for," and you strike a bargain with that girl on that basis.

In other words, the wage system under which we are operating is *not* based upon need; it is based upon the value of services rendered by an employee to the employer. So then our Legislature came along and said: "We want to take care of workers who are detached during periods of unemployment; we are going to relate what we pay them to what they earn".

If a detached employee is on his way to one of our offices to pick up benefits and the mailman should run up and hand him a special delivery envelope and in that envelope he should receive news that his uncle had died leaving him a million dollars, that person can keep right on coming into our office and pick up his twenty-two dollars a week or down to nine—it makes no difference, absolutely no difference whatsoever. The payments are not based upon the financial or economic circumstances.

The basic factor common to all these activities is unemployment. You are being paid for the reason that you are unemployed; and the amount paid you is measured by the amount that you would earn.

We have covered under unemployment compensation activity 1,600,000 individuals. We have 40,000 employers who are subject to our law. That means that we have to service 40,000 employer accounts.

Under this new temporary disability law we have a coincidence of coverage both of employers and employees. We have 40,000 employers in this state subject to that law and, generally speaking, we have 1,600,000 individuals who are covered by that law.

There is just one slight discrepancy. The temporary disability law says that if you belong to a religious cult which doesn't believe in the ordinary physician, you may file a certificate and get an exemption and you are thereby "de-covered". We don't know just about what that will amount to—not much—so

* Read by invitation, Sixth Clinical Conference, The Medical Society of New Jersey, December 8, 1948.

that generally speaking we will have a coincidence of sub-status on the part of the employers and a coincidence of coverage on the part of the employee.

They tell us that about 58 per cent of all people that work will be sick for a day or more in the course of a calendar year, which means that of the 1,600,000 that we have covered more than 800,000 will suffer some sort of sickness or disability.

In this law is a provision that the first compensable date cannot begin before the eighth consecutive day of illness. Thus, we have a waiting period of seven days of continuous illness from the commencement of the period of disability before we arrive at compensability. On that basis there will be about 100,000 claimants who will pick up benefits under this law in the year 1949.

We estimate that we will send out about 10,000 checks each week; that we will pay out about $200,000 each week or a little over 10 million dollars in the course of the year.

Three states have ventured into this experiment: Rhode Island in 1942; California in 1946; and New Jersey in 1949.

In Rhode Island they have only the "state plan". Private insurance companies there didn't think it was going to amount to much and they didn't get in; I think they have regretted it very much ever since.

They didn't make that mistake in California. They provided a "dual plan", a system whereby the employer has his choice. He could make a contract with an insurance company, and thus farm out the insurance obligation; or carry it himself upon the deposit of sufficient security with the state agency or upon some other demonstration of his financial ability to carry the program.

New Jersey followed the California pattern, after a long debate at many public meetings. Organized labor was in favor of an exclusive state plan, and, of course, the insurance companies and some of the private employers were in favor of a private plan.

Originally the insurance companies seemed to be unanimously in favor of a private plan and they didn't want the state to have anything to do with the activity; but then they realized that if the insurance companies took over the activity *in toto*, there would be a rating board erected and some state agency then would tell the insurance companies what rates they could charge. They then decided that the "dual plan" for New Jersey was much better than the private monopoly plan and in the final sessions of the committee they argued in favor of the "dual plan".

Under the state plan a certain formula or norm is erected. It tells the state what taxes it may charge to support the plan; it tells the state how much it can pay out by way of benefits to the "disemployed". The private plans, therefore, use that state formula as their standard and so long as they equal or surpass the state program, the private plans must be approved by the state agency. There is no ceiling on the benefits which a private plan can carry or pay. The only restriction is that they can't pay less money, afford fewer benefits, give payment for a shorter duration or impose greater eligibility conditions upon the claimant. The state, however, is absolutely restricted; it has no choice.

In California they started out with about 20 per cent private coverage and 80 per cent public coverage. We have had applications to date from somewhat fewer than 600 private plans. They have been approved. We can't tell what the proportional coverage will be, but our best estimate is that it will be about 30 per cent private and 70 per cent public.

In California it grew from 20 per cent private to 30 per cent private. The tendency there has been toward the private plan.

Of course, many of these companies have the right to enter into what are called supplementary plans. Under our law the state can pay only cash sickness benefits, but under a private plan they can tie in hospitalization, surgical, dental, nursing and other items. This makes an appeal to some classes and grades of employees. We don't know what the result is going to be in New Jersey, but it will probably follow the experience of California. It is a question as to whether the private plan will ever represent a majority of coverage. We don't know. We had fewer than 600 applications for approval of private plans. We haven't

figured it out yet, but that could constitute, under our law, about 60 per cent of the coverage. If all the large employers worked together and adopted a private plan, the majority of coverage could be under the private plan; however, we don't know anything about that yet.

We are absolutely in the hands of the doctor. We can't do anything without your cooperation and we are wise enough to know that we can't get your cooperation unless we inspire a cooperative attitude on your part.

For years at Washington there has been a drive for national health insurance. I have just read Mr. Ewing's report to President Truman, and it appears that the fight is on again at the 1949 session of Congress.

Now, here is what they have done in this new compulsory health insurance proposal. They have attached to it a provision for cash and sickness disability on a national scale. Of course, they have that feature in the Railroad Retirement Act. The Railroad Retirement Board makes payments to the railroad worker who is sick and disabled. But this present law wants to make it universally applicable to the nation at large, including the territories.

Only three states have launched upon this program. It is in the experimental stage. The success or failure of the program in this state, of course, depends upon the doctors. Maybe the success or failure of the national health insurance program will depend upon the doctors too.

If the doctors will cooperate with the state agency and make this program a success at the state level, it will repel the advances of federalization and socialization. I don't think anybody can question that statement or that conclusion.

If the program fails at the state level, then that is the strongest argument in the world down in Washington that it can be made successful only at the federal level.

We are happy to have the doctors in that position. We don't know how the doctors feel about it. We think they ought to feel happy, too; they ought to feel honored.

It is the first time that I know of that the state has said to a single profession: "We have such confidence in you and your integrity that we are going to rely a hundred per cent upon your determinations".

That reduces the work and reduces the responsibility of the administrative agency to a minimum. It makes us mere automatons. If a doctor says that Mr. A is entitled to benefits, somebody over in our agency must move his hand and write a check. But if the doctor says he is not entitled to benefits, then he gets no check.

We have confidence in the integrity of the medical profession and I don't think that that confidence is going to be abused.

We ask you to help us; we ask you to cooperate with us; and we are trying to make you see that it is to your interest to cooperate with us.

Doctors, like other people, are averse to filling out a lot of forms. An effort has been made now to reduce the work of the doctor to a minimum. That is one part of the machine that came to my attention a couple of weeks ago. When I looked at the form, I insisted that it be simplified. I particularly insisted that the certification by the doctor on the back of the form should be simplified, and I think if you look at that form you will find that your work has been reduced to a minimum.

I want to emphasize one thing: this is *not* a health or welfare program. The relationship of patient and doctor is not interfered with in the slightest. It is the treatment for sickness from the doctor's standpoint.

There is no federal fund or state fund, as the federal legislation contemplates, to which the doctors must go for fees. There is no prescription or formulation of minimum standards which all members of the profession must meet. There is no provision that certain facilities or certain kinds of drugs be used. It simply asks the doctor to certify to the agency what he finds about this claim. If there is anything the matter with him that disables him from working, to say it; and if there is nothing the matter with him that would disable him from work, also to say it. We are attempting to make payments to individuals who are unemployed for a certain reason. The doctor may go ahead and treat

him in the ordinary way, if he wants to, or he doesn't have to.

When a man is injured at work we have been paying him for the period of unemployment since 1911. Basically that is a payment for unemployment. Of course, when you come to the permanent injuries there is an attempt to pay for the reduction in wages that he will be able to earn in the future because of this disability. So when you analyze it properly even the permanent compensation that is given is a measure of the wages which he earns or is unable to earn. We also pay for unemployment caused by economic conditions. But until now, we didn't pay for unemployment, due to economic conditions, to any individual unless he can demonstrate to us that he has the physical ability and also the availability to perform suitable work. We pay to those people who happen to be unemployed, if they also happen to be able to work at a job if they can get one.

Here were people that would be out looking for work and become sick. Certainly those people needed assistance from the state during their unemployment, to a greater degree than the man who had good health, because he had to bring in the doctors; but it was at that time that we shut off the unemployment compensation payments; and it was to remedy that situation in part that the Temporary Disability Insurance Law was passed.

If an Unemployment Compensation Law is equitable, surely no one could challenge the equity of a Temporary Disability Law.

Dr. Henry Brodkin (Essex): What will your agency do if you have a form, with a diagnosis of a subluxation of the third dorsal vertebra, signed by a chiropractor? Also consider a man receiving unemployment benefits; say it has run for four weeks and he then comes down with an attack of pneumonia. Will unemployment benefits stop and will sickness insurance carry on? Or a man sustains a fracture of his arm, receives workmen's compensation and then toward the end comes down with some sickness. Has that been settled?

Is there any provision for permanent disability following an illness? For example, if a man has rheumatic fever and is left with a crippled heart, will there be any permanent disability on this sickness plan?

Mr. Malloy: Nobody can pick up employment compensation benefits if he has exhausted his wage credits. When, in his benefit year, he is paid all he can get on the basis of what he has earned in his base year, then he is through. We have no provision for permanent disability as such. When you exhaust your wage credits, then you exhaust your benefit rights. You cite the case of a fellow who was out of work and becomes sick. We have a provision for that. We keep on paying him benefits but on the basis of disability. We pay him exactly the same rate that we paid him for his other weeks when he was able to work and available for work. But when that man exhausts the limit allowed by the law, we stop paying. Then he must go to a relief agency or some place else.

There is no charity in any of these activities. The formula is peremptory. When the formula has spent its force, when you have used up all the money that the formula allows you, then we are through.

Dr. Brodkin: What is the attitude of your agency in the case of a certificate being signed by a chiropractor?

Mr. Mallory: The law says a regularly licensed physician. Is a chiropractor a licensed physician? Is he somebody certified by the State to administer to the bodily and mental ills of the human being?

Dr. Schaaf: I think chiropractic is definitely differentiated from the practice of medicine as such. Both chiropractors and osteopaths with limited licenses are governed by the same medical practice act, but the conditions of their practice are clearly set forth.

The practice of medicine would include only the regular practitioners plus the doctors of osteopathy who have a full license to practice medicine. I think all the rest should not be accepted as having adequate medical certification. It should be limited to the regular physician and duly licensed doctors of osteopathy. I think limited license men should not be acceptable.

Dr. Brodkin: Well, I hope that you will consider that when that question comes up.

Mr. Mallory: There is an amendment, you know, saying that the certificate of a dentist must be honored, a duly licensed dentist.

Dr. Brodkin: When a man is receiving compensation for an industrial injury, and in the course of his convalescence he becomes ill with, let us say, pneumonia, which may tie him up for four weeks, will your agency pay him during that sickness period?

Mr. Mallory: Is he getting anything from the insurance company during the sickness period?

Dr. Brodkin: Yes, on his accident.

Mr. Mallory: The law expressly says that you can't collect both.

Dr. Collins (Gloucester County): If a man is sick for six weeks, how much and how many papers do we have to fill out—one a week or what is the status?

Mr. Malloy: There is where that diagnosis and prognosis comes in. In the first place, you can't certify a man retrospectively or retroactively. He must be actually under the attendance of a duly licensed physician. If, after he is sick five or six days, he calls you up and has you come in, the law will not allow you to certify from the beginning.

You certify and you give an idea; this form

which you answer says: I expect that he will be suffering for about a period of three weeks or four weeks or whatever it is. Now, relying upon that, he will be paid for the period indicated in the prognosis.

DR. COLLINS: Unless he goes back to work.

MR. MALLOY: That's right, unless he goes back to work. Then at the end of that time he will have to make a new application or the doctor will have to be consulted.

DR. COLLINS: Then there is no special form for him to fill out at the end if he goes back within the original prognosis.

MR. MALLOY: That's right.

DR. JOHNSON (Mercer County): I'd like to bring up the question that's bound to come to us. There is a fringe of situations where a patient will come in and ask for certification when he is not entitled to it.

Now, you say you are giving a job to the doctors to do. You stated that the patient must be under treatment by the tenth day of the illness and yet you haven't defined "treatment". Let us say that a patient calls us up, says: "Doctor, I have an awfully bad cold," and we prescribe for them over the 'phone. We shouldn't, but we are not going out to see a man with a cold at two o'clock in the morning. We tell him to come in the office the next day, unless he is critically ill. He comes in two weeks from then with a certificate. Legally he is under our treatment because we did prescribe and he has satisfied the law. If we don't sign we are behind the eight-ball with the family and it is pretty tough for the general practitioner to buck all those cases that come into his office.

I do think there ought to be a better definition of when the physician may certify so it takes the work off the physician, puts it in the law so that we can't be condemned for refusing a patient a favor.

MR. MALLOY: The language of the law is: He must be attended by a licensed physician.

DR. JOHNSON: What does "attended" mean?

MR. MALLOY: When are you attending a patient? When you are giving him the attention, the medical attention which his case deserves. That may begin over the telephone.

He may be a man that has a disease that has a recurrence, we'll say. He calls you up on the 'phone and from the way he describes it you know just exactly what is the matter with him and what to do for him. I would say that that man was being attended; he was receiving the medical attention, the professional attention of the doctor from that time.

DR. JOHNSON: But don't you think the law should include the word "examined"? Then it would take the onus off of us. It would permit us to say to the man: "Now, here is the law. I cannot sign this and certify beyond the period, the tenth day. You must be examined by the tenth day before I can certify."

MR. MALLOY: Well, that word "examine" isn't there and the word "attend" is.

DR. JOHNSON: I think it gives us a tough job.

MR. MALLOY: I can appreciate how the family doctor might be put in a position if he didn't issue a certificate every time the family wanted him to; but I guess it will have to be done. The Legislature has given it to the doctors to make a determination and they have told this agency of ours to rely one hundred per cent upon the certifications of the medical profession.

DR. MORELAND (Essex County): Is it contemplated in the act to establish any system of examinations of these patients before they return to work, by the state? Is there any sort of state examination by the state employed physicians?

MR. MALLOY: I think that they are willing to rely upon the certification of the physician. However, we will have to have a medical director. The other two states have had to have a medical director. They have had to have somebody who understands these problems and somebody who can coordinate such organizations and societies as this. I suppose the agency, when he is appointed, will rely a great deal upon the suggestions and indications of that coordinator. In California the director there says that the success of the whole program was due to the excellent medical director and coordinator that they were able to procure.

I don't know of any procedure that has been erected to date to provide for these medical examinations before the claimant returns to work.

DR. SEITZICK (Mercer County): How does obstetrics relate to this law?

MR. MALLOY: The law says that if a woman is pregnant, benefits cease. If her unemployment is due, it ceases. So for the period in which you would come in, there would be no benefits payable. A certification from you that her unemployment was due to pregnancy or childbirth would create a period of time in which no benefits would be payable. Therefore, we would have to rely upon your certification that that condition existed.

DR. SEITZICK: Heretofore, all we had to do was say that the patient is pregnant but she is able to do some form of light work.

MR. MALLOY: That is right. Now, that is under the Unemployment Compensation Law where you must be able to work and available for work. I am talking about now the Temporary Disability Law, which contains a provision which says during that period, no benefits paid.

DR. COTTONE (Mercer County): What happens to this law if the national compulsory health insurance bill should succeed in the next Congress?

MR. MALLOY: That is a question for statesmen to answer. Then you would have the Federal Government paying and you'd have the state paying. However, in the literature which they are putting out at the present time, they are suggesting that the federal law be administered to the maximum degree. Whether that might be construed to mean that those states that already have a program would be omitted from the federal program, I don't know; but surely it would create a confused condition if an individual collected, at the state level and at the federal level, benefits for the same unemployment.

That would be a question of policy for the Legislature to decide. The administrative agency couldn't answer that.

Dr. Haines (Monmouth County): Must the one or two employees we have in our offices be covered by this law?

Mr. Malloy: No. Four or more. I am not much of a prophet; I don't like to indulge in prophecy in view of recent events, but I understand that there is a move, a very strong move beginning in the next Legislature to cover employers with one or more; but at the present time you must have four or more in your employ.

Dr. Johnson: Could you define "attending", legally and for the purposes of the law, to include examination?

Mr. Malloy: Yes.

Dr. Johnson: If you define the term as used in the law, then it is limited to that use.

Mr. Malloy: Yes, I think "attend" would include an examination, but it wouldn't compel an examination.

Dr. Johnson: Don't you think it should be done?

Mr. Malloy: You must put yourself in the position as a reasonable man to gather just what is the matter physically with the patient that craves your services. That is what you do; you ascertain what is the matter, then you prescribe. Any proceeding or process which would enable you to do that ought to be "attending" a patient.

Dr. Johnson: The problem is not on that high level, it's on these families that want more than they are entitled to and it is up to us to be a policeman.

Mr. Malloy: That is what we want this Medical Society to do in order to help police.

Dr. Johnson: Whether we want to or not.

Mr. Malloy: I am just telling you what the Legislature did.

Mr. Bryan: I don't think that this meeting ought to close without our expressing to Mr. Malloy our appreciation of the fact that up to this time we have enjoyed the utmost cooperation from his office in the work of drawing up and consulting together on regulations and rules that will operate when this system goes into effect.

In regard to the status of chiropractors, the law itself speaks of a "licensed physician". That has been construed in the regulations that we approved as being a physician *licensed to practice medicine and surgery,* with the full understanding that that applies only to M.D.'s and to those osteopathic physicians who enjoy a full license. I don't think there is any place in the program for any of the "partial practitioners" other than dentists.

Mr. Malloy: Recently an official of the State Department of Health said to us: "Now at last we are going to get the statistics that we have been looking for. We get so very few at the present time". They wanted to know if they could arrange to pick up statistics from reports as they came in —area and so forth—and wanted to know if we might incorporate in our form of requirement that doctors must use the international statistical nomenclature. They said that a doctor in South Jersey will describe a disease by one name and a doctor in North Jersey may describe the same disease by another name and that unless a certain code was used the statistics wouldn't be of very great value. Of course, that is something we don't know anything about.

In California they failed on that. They are up against that very situation out there.

Dr. Sica (Mercer): I hope the state does not employ the standard nomenclature that we use in the hospital, because if we do we'll need a bigger building than this building they have over here now.

Dr. Douglas (Somerset): You say we may not back-date our reports. I have many employees who come down with a cold and they are expected to know how to take care of a cold without getting me out to see them. After two or three days they find this cold isn't running true to form. Then they call me up and say: "I have been out for two or three days with a cold. I want you to fix me up". If I may not back-date the report, we are going to get into difficulty. Either they are going to be vexed because I didn't cover those first few days; or else I am going to be snowed under by every employee who gets a cold and spends a day at home, because he is going to call me on the 'phone and say: "Put me down in your book as starting illness at this point".

Mr. Malloy: How long would you allow them to go before they called you up? How far would you be willing to make your certification retroactive? The law says that the compensable or creditable period is that during which he is attended by a licensed physician.

Dr. Douglas: Then the best advice I can give my patients is to call me up the first half-day they stay at home on illness, to let me know the time is starting then.

Mr. Malloy: That would be the safe thing. You would prescribe for him.

Dr. Douglas: I'd tell them to go to bed and let me know how they are getting along.

Mr. Malloy: They would know enough to do that without your advice.

Dr. Douglas: But if they act on their own intelligence they can't get any compensation.

Mr. Malloy: That's right. This law doesn't allow a person to administer to himself or herself.

Dr. Douglas: I want to know what to tell my patients to do. I shall tell them to call me at once. But I'll be snowed under.

Dr. Sica: Can you visualize what will happen if a doctor refuses to sign for a patient? Suppose he comes in and says: "Doctor, I have been sick for ten days. Will you fill out this certificate?" And if you refuse to sign it, can you visualize what may happen?

Mr. Malloy: I don't know.

Dr. Cottone: There would be a lot of changes of doctors.

Dr. Johnson: Isn't it true if you see them by the tenth day you can certify them back?

Mr. Malloy: No.

Dr. Johnson: Doesn't it say they must be in attendance by the tenth day?

Mr. Malloy: No; the creditable period must be the period during which they are attended by a licensed physician.

BOARD OF TRUSTEES

NOVEMBER 21, 1948

The Board of Trustees held a special meeting in Trenton on November 21, 1948. An abstract of the actions follows:

1. Minutes of the September 26, 1948, meeting were approved as distributed.

2. After a conference with the Delegates to the A.M.A. and the Chairman of the Special Committee on Military Service, the Board approved the following instructions to the A.M.A. Delegates (such instructions to be regarded as advisory and not binding):

a. We recognize that a problem exists in the recruitment of physicians for military service and urge that the A.M.A. take a constructive stand to bring about legislative enactment: (1) For the deferment of pre-medical and medical students and interns up to a period of two years internship who shall then be required to serve a period of one year in military service after completing their internship. (2) That such military service should apply as one year credit of residency in requirements of specialty boards. (3) For specialists to be obtained without regard to age on a contract surgeon basis with adequate salaries.

b. Confer upon the Division of Medical Services of the National Security Resources Board the function of procurement and assignment and the responsibility of obtaining necessary medical personnel for the armed forces; this agency to be advised on behalf of the A.M.A. by appropriate committees of the A.M.A.

c. Every consideration should be given to the possibility of improving the supply of medical officers through unification of the medical corps of the services and through every practicable economy in the use of medical officer services.

3. The Delegates to the A.M.A. were informed that it was the opinion of our Trustees that a national insurance organization is inadvisable.

4. Upon recommendation of the A.M.A. Delegates the following resolution was approved:

WHEREAS, the general practitioner is the foundation of medical care in all communities; and

WHEREAS, the present trend in medical education is to direct a high proportion of medical graduates to a limited field of intern training; and

WHEREAS, the basic requirement of our medical examining boards is a rotating internship embracing all branches of medicine; and

WHEREAS, it is to the best interest of the people of New Jersey that we adhere strictly to these requirements for licensure; and

WHEREAS, we believe the present trend towards over-specialization will seriously affect our present ratio of general practitioners and specialists;

BE IT RESOLVED, that the Board of Trustees of The Medical Society of New Jersey advocate:

a. Our strict adherence to these principles.

b. That prior to entering any field of limited intern or residency training or specializing, all medical graduates shall have had at least one year of internship embracing all of the major branches of medicine.

c. That a resolution embracing these concepts be presented to the House of Delegates of the A.M.A., emphasizing the fact that the key to the preservation of general practice and the balancing of medical service within communities lies in the insistence that primarily and basically a doctor should be prepared for general practice. What he does from the standpoint of specialization is optional with the individual.

5. A supplementary resolution on general practice, requesting the A.M.A. to urge hospitals to give rotating internships, was approved by the Board. It will be forwarded to the A.M.A. delegates for their consideration and authorization to present it to the A.M.A. House of Delegates if such a plan is not already under consideration there.

6. The Board instructed the A.M.A. Delegates to explore the possibility of a vote by the members of the A.M.A. on national compulsory health insurance in order that we may know our strength in terms of membership and before any act becomes a law.

7. The Board authorized each Delegate and official representative of the Society to the A.M.A. meeting a sum not to exceed $200 for expenses.

8. Total expenditures not to exceed $6000 (to be taken from the House Reserve Account), were authorized by the Trustees for the renovation of three rooms in the basement of the Trenton headquarters and the purchase of new equipment.

9. The Trustees authorized a private plan policy for temporary cash sickness benefits covering the Society's employees.

10. President Hornberger announced the appointment of Dr. Paul B. Reisinger, Dr. Bernard A. Hirschfield and Dr. Patrick H.

Corrigan, all of Trenton, as a special advisory committee to the Medical Director of the Temporary Cash Sickness Benefits Plan of the State of New Jersey.

11. In response to the Society's resolution requesting the Governor to establish a Commission for the Study of Need for a Medical School in New Jersey, adopted by the House of Delegates in April, the Governor in a communication informed the Board that he had no hesitancy in approving the establishment of such a survey committee; that he would appoint the eight lay members of the commission with the specific understanding that the committee will include in its report a detailed analysis of the financial requirements for the support of any project proposed, and recommendations for adequate methods of meeting such requirements.

The Board empowered the President and Chairman of the Trustees to name the four members of the Commission who will represent the Society; and the following have been named: Drs. Irvin E. Deibert, Camden; Royal A. Schaaf, Newark; L. Samuel Sica, Trenton; and James F. Norton, Jersey City.

12. In response to a formal communication from the President of the New Jersey Rheumatism Association requesting official approval of the Association by The Medical Society of New Jersey, the Board took action endorsing the Association in principle.

13. The Board was informed that the school health program is not functioning properly at the present time and action should be taken to develop guidance on a state level for the county units.

The Advisory Committee on School Health was asked to give the Board its opinion as to the necessity of a guidance committee on a state level for the county school health councils; and if such committee is approved what its functions and duties are to be.

PROPOSED CONSTITUTIONAL AMENDMENT

The following proposed amendment to the Constitution was approved by the House of Delegates at the 1948 Annual Meeting and will be presented for final approval at the meeting in April, 1949. The proposed amendment is herewith published in full in compliance with the constitutional provision to that effect. The italicized word represents amendment to Article VI of the Constitution:

ARTICLE VI—BOARD OF TRUSTEES

The Board of Trustees shall be the executive body, and shall be composed of the *immediate* Past-President, President, President-Elect, two (2) Vice-Presidents, Secretary, and Treasurer (by virtue of their offices), and eleven (11) members—at least two (2) from each judicial district—who shall be elected as follows: . . . .

GRADUATE COURSES IN NORTHERN NEW JERSEY

The Essex County Medical Society—Seton Hall College graduate educational program for physicians proved so successful in 1948 that courses will be given again in the spring and fall of 1949. These are designed with a triple goal: (1) To provide up-to-date advanced training for the general practitioner interested in increasing his proficiency, (2) To fulfill the requirements of the specialty certifying boards, and (3) To furnish the mature specialist with an opportunity to keep abreast of current advances.

Further information, the necessary enrollment blank, and fuller descriptions of each course may be obtained from

DR. GERALD I. CETRULO
Director of Medical Education, Seton Hall College
40 Clinton Street, Newark 2, N. J.
or by telephoning Dr. Cetrulo at Humboldt 2-6528.

Physicians who are *not* applying (as veterans) under Public Law 346, simply fill out the application blank (which they obtain from Dr. Cetrulo) and send in a remittance covering tuition fee.

Physicians who served in the Army or Navy and who wish to take advantage of Public Law 346, will be guided by the following:

CLASS 1. Veterans who were previously enrolled in courses at Seton Hall and who did not take

courses in the interim at any other institution need only fill out the application and sign the statement on the form.

CLASS 2. Veterans who took courses at another institution in the interim must obtain a Supplementary Certificate of Eligibility from the Veterans Administration and mail application with this certificate (or a check, pending receipt of certificate.)

CLASS 3. Veterans applying for the first time must obtain either an Original Certificate of Eligibility or (if they have taken courses elsewhere) a Supplementary Certificate of Eligibility from the Veterans Administration. A check must be sent, pending receipt of certificate.

CLASS 4. Veterans who cannot mail a Certificate of Eligibility or a Supplementary Certificate with the application, must mail a check for courses desired. In this case, remittance will be refunded upon receipt of the proper certificate.

No applications will be accepted without one of the following: (1) Certificate of Eligibility, (2) check or (3) signed statement (Class I) at end of the application form.

Mail Check (made out to Seton Hall College) or Certificate of Eligibility with application to:

DR. GERALD I. CETRULO
Director of Medical Education
Seton Hall College
40 Clinton Street, Newark 2, N. J.

Registration is accepted only by mail. Classes will be filled according to (1) date of application (certificate or check must accompany application to be valid), (2) veteran status, (3) specialization, (4) pre-requisites in basic sciences.

Registration will close as soon as a course is filled by acceptable students. Notification of acceptance will be made by mail.

Following is a tabular summary of the courses offered during 1949:

GRADUATE COURSES, SPRING TERM 1949, AUSPICES ESSEX COUNTY MEDICAL SOCIETY AND SETON HALL COLLEGE

No.	*Subject*	*Instructor*	*Days*	*Time*	*First Session (1949)*	*Sessions*	*Fee*	*Place*
3E	Diseases of Liver, Gall Bladder, Pancreas	S. S. Lichtman	Fridays	4 to 6 P.M.	March 11	6	$ 40.00	N
6E	Surgical Anatomy	Ernest Lampe	Mondays	4 to 6 P.M.	February 7	20	200.00	C
17E	Hematology	Nathan Rosenthal	Fridays	4 to 6 P.M.	February 4	5	35.00	N
23E	Surgical Physiology	N. Y. U. Staff	Saturdays	10 A.M. to 12	February 19	15	75.00	N
25E	Surgical Technic and Abdominal Surgery	Ernest Lampe	Fridays	4 to 6 P.M.	February 4	20	200.00	C
26E	Regional Anesthesia and Autonomic N. S.	E. A. Rovenstine	Wednesdays	4 to 6 P.M.	February 2	10	100.00	C
31E	Gynecology	Henry Falk	Saturdays	3 to 5 P.M.	February 5	16	75.00	S
40E	Peripheral Vascular Disorders and Vascular Surgery	Walter Redisch Gerald Pratt	Tuesdays	4:15 to 6:15 P.M.	February 1	12	60.00	S
41E	Therapeutics and Pharmacology	Harry Gold	Saturdays	4 to 6 P.M.	March 5	15	60.00	N
22F	Gastro-Enterology	Henry Bockus	Mondays	4:30 to 6:30 P.M.	October 17	10	50.00	N
42E	Laboratory Aids in Medicine and Surgery	Ralph Stillman Frank Meleney	Wednesdays	4 to 6 P.M.	February 9	15	75.00	N

Open to all members of The Medical Society of New Jersey. Courses marked N are given at 40 Clinton Street, Newark 2, N. J. Those marked S are held on the campus of Seton Hall College, South Orange Avenue at Ward Place in South Orange. Subjects marked C are given at Newark City Hospital, 116 Fairmount Avenue, Newark.

WITH NEW JERSEY MEDICAL AUTHORS

Compiled by Harold M. Goettel, Librarian,
Academy of Medicine Library, Newark

Abraham, Albert (Morristown) and Solomon, Harry A.—Success with oral mercurial diuretic. New York State J. Med. 48:1593, July 15, 1948.

Bernstein, Arthur (Newark)—See Parsonnet, Aaron E. (Newark).

Bernstein, Israel J. (Newark), Fox, Theodore T., Robitzek, Edward H. and Bobb, Audrie L.—Bed-rest in thrombo-embolization in tuberculosis. Am. Rev. Tuberc. 57:485, May 1948.

Block, Marcus T. (Newark)—The treatment of headache with sodium nicotinate. Clinical Medicine. 55:173, July 1948.

Campbell, Meredith F. (Montclair)—Bilateral embryonal adenomyosarcoma of the kidney (Wilms tumor) J. Urology. 59:567, April 1948.

Carrol, Wilfred (Newark)—Disadvantages of sulfonamide combinations. Am. Int. Med. 29:533, Sept. 1948.

Cohn, George M. (Newark)—See Finkler, Rita S. (Newark).

Davidson, Henry A. (Flemington)—The psychiatric manpower of New Jersey. Am J. Psychiat. 105:-292, October 1948.

Fanburg, Sol J. (Newark)—Allergic eczematous reactions of the nail bed; persistent subungual changes based on contact with "undercoats" containing artificial resins and rubbers, by Sulzberger, Marion B., Rein, Charles R. . . . Wolf, Max, Shair, Hilliard M., and Popkin, George L. J. Invest. Dermat. 11:67, July 1948.

Fanburg, Sol J. (Newark)—Hyperkeratosis and onycholysis after use of nail cosmetic, by . . . and Sharlit, Herman. J.A.M.A. 137:785, June 26, 1948.

Finkler, Rita S. (Newark)—Histological changes in the senile vagina induced by estrogenic therapy administered orally and by inunction. Medical Woman's J. 55:35, Aug. 1948.

Finkler, Rita S. (Newark)—Treatment of endocrine infertility in the female. Medical Woman's J. 55:27, Oct. 1948.

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Furman, Robert A. (Newark)—Angiocardiography: its use in the diagnosis of patent ductus arteriosus. New England J. Med. 238:116, Jan. 22, 1948.

Goldstein, Hyman I. (Camden)—A century of medicine, 1846-1946. Medical Rec. (New York) May 1947.

Goldstein, Hyman I. (Camden)—The History of regional enteritis (Saunders - Abercrombie - Crohn's ileitis). *(In* Essays on the History of Medicine—Victor Robinson Memorial Volume—New York, Froben Press, 1948. Pp. 99-104.)

Goldstein, Hyman I. (Camden)—Unusual benign hematemesis gastric telangiectatic dysplasia: Rendu-Osler-Weber's disease (Goldstein's Hematemesis). Rev. Gastroenterology. 14:258, April 1947.

Greenberg, William B. (West New York), Giannini, Margaret J. and Borrelli, Frank J.—Agenesis of the vertebral bodies—a cause of dwarfism. Am. J. Roentgenol. 59:705, May 1948.

Heineken, Theodore S. (Bloomfield) and Seneca, Harry—Phthalyl sulfacetimide in ulcerative colitis. Rev. Gastroenterology. 15:611, Aug. 1948.

Klosk, Emanuel (Newark)—See Parsonnet, Aaron E. (Newark).

*Kraemer, Manfred (Newark)—Dyspepsia in the Army—mental disease in soldiers with gastrointestinal complaints. Mil. Surgeon. 102:292, April 1948.

*Kraemer, Manfred (Newark)—See also Siegel, Leo H. (Newark).

Leff, William A. (Newark), Brenner, Joel J. and Hochstein, Elliott.—Lupus erythematosus disseminatus sine lupo with the nephrotic syndrome. Am. J. Med. 5:288, Aug. 1948.

Parsonnet, Aaron E. (Newark), Bernstein, Arthur (Newark), and Klosk, Emanuel (Newark) with Eric Hirschberg, M. S., Saul Rubin, Ph. D. and Leo A. Pirk, Ph.D. (Nutley) and the technical assistance of Martha Fine Greenberg, B.A. Evaluation of a new sedative drug (3,3-diethyl-2,4-dioxopiperidine). J. Lab. and Clin. Med. 33:602, May 1948.

Pendexter, Sidney E., Jr. (East Orange)—B. Pyocyaneus corneal ulcer treated with penicillin. Am. J. Ophth. 31:862, July 1948.

Rommer, J. Jay (Newark)—Surgery in the treatment of sterility. Urol. & Cutan. Rev. 52:586, Oct. 1948.

Schwartz, Mortimer L. (Irvington) and Kalter, H. H.—Electrical alternans. New York State J. Med. 48:10, May 15, 1948.

Siegel, Leo H. (Newark) and *Kraemer, Manfred (Newark)—Further studies on the Weltmann serum coagulation reaction. J. Lab. & Clin. Med. 33:618, May 1948.

Willner, Philip (Newark)—Anterior capsulectomy for contractures of the elbow. J. Internat. Coll. Surgeons. 11:359, July/Aug. 1948.

Wuerthele-Caspe, Virginia (Newark) — Micro-organisms associated with neoplasms; the presence of consistently recurring invasive mycobacterial forms in tumor cells, a symposium presented under the auspices of the New York Microscopical Society (an affiliate of the New York Academy of Sciences) March 19, 1948. Introd. by S. J. Rose (Newark)—New York Microscopical Society Bulletin 2:2, Aug. 1948.

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* Deceased.

Note: This lists papers by New Jersey physicians in out-of-state publications only. Articles in this Journal are not included. Friends of medical authors will confer a favor on them by notifying the librarian of the Academy of Medicine of any paper published out of the state by a New Jersey physician.

OBITUARIES

DR. CLARA K. BARTLETT

Dr. Clara K. Bartlett, medical inspector of the Atlantic City schools for 40 years, died at her home in that city on December 16, 1948. Born in Philadelphia in 1867, Dr. Bartlett graduated from the Woman's Medical College in her home town in 1900. She retired from active practice in June 1946. In April of last year Dr. Bartlett was elected to emeritus membership in The Medical Society of New Jersey. She had been an emeritus member of the Atlantic County Medical Society since 1938.

DR. ELBERT A. CURTIS

Dr. Elbert A. Curtis, Newark ophthalmologist, died at his home in South Orange on December 2, 1948.

Dr. Curtis was born in 1873 in East Brookfield, Mass., and moved to Newark at an early age. He was graduated from St. Louis University Medical School in 1896 and served his internship at St. Louis City Hospital for two years. Upon his return to Newark he became associated with the late Dr. Charles J. Kipp and the late Dr. Wells P. Eagleton.

Dr. Curtis served in World War I. He was associated with seven Essex County hospitals and was a member of the N. J. State Commission for the Blind.

DR. JAMES C. KEENEY

Following a long illness, Dr. James C. Keeney of Hoboken, died in St. Mary's Hospital on December 15, 1948, at the age of 48. Dr. Keeney was medical examiner for the New Jersey State Workmen's Compensation Board at Trenton for the past 18 years.

Dr. Keeney was a native of New York but had lived most of his life in Hoboken. He received his medical degree from New York University in 1926. He was a staff member of St. Mary's Hospital and had served for a time on the staffs of New York hospitals. During World War II, Dr. Keeney served two years as a captain in the Medical Corps.

DR. MANFRED KRAEMER

With shocking suddenness, Dr. Manfred Kraemer, one of the state's most promising gastroenterologists, died suddenly on November 12, 1948, at the early age of 44. A life long resident of Newark, Dr. Kraemer was graduated from the medical school of the University of Pennsylvania in 1929. He served three years in World War II, most of it overseas, attaining the rank of lieutenant colonel. He was a Fellow of the Royal Society of Tropical Medicine and of the American College of Physicians and a diplomate of the American Board of Internal Medicine. He was active in both the American and the International Gastro-Enterological Societies. He was a valued member of the Essex County Medical Society, being credited with having revitalized its Speakers' Bureau when he took over the bureau's chairmanship two years ago. He was attending gastro-enterologist at both St. James and the Newark Presbyterian Hospital, and was on the consulting or associate staffs of many other institutions.

He was a prolific and helpful writer on gastroenterologic topics, and by a poignant irony, the JOURNAL which appeared on the day of his death, carried one of his articles.

DR. GEORGE F. MANGONE

Dr. George F. Mangone of Union City died suddenly on November 20, 1948, of a cardiac ailment. He had recovered sufficiently from a recent acute illness to resume his work and the news of his passing came as a distinct shock to his many friends.

Dr. Mangone was born in New York City in 1901 and had resided in North Hudson since 1905. He received his medical degree from Bellevue Hospital Medical College in 1925 and practiced medicine in Union City for twenty-two years.

At the time of his death Dr. Mangone was Health Officer of Union City and on the staffs of several hospitals.

DR. EDWIN SCHILLER

Dr. Edwin Schiller, eye specialist, died at his home in Elizabeth on November 18, 1948, after an illness of several months.

Dr. Schiller was born in 1891 and was graduated from Friedrich-Wilhelms-Universtät Medizinische Fakultät, Berlin in 1919. He had been practicing in Elizabeth for twelve years and served on the medical staffs of St. Michael's and Beth Israel Hospitals in Newark.

DR. JAMES D. SMITH

Dr. James D. Smith of Collingswood, died on December 16, 1948, of a heart attack.

Born in Harrington, Del., in 1879, Dr. Smith was graduated from Westminster Theological Seminary, attended Western Maryland College, and in 1914 was graduated from Jefferson Medical College. He served his internship at Cooper Hospital and joined its staff when he began practicing in 1916.

DR. HENRY A. VITI

Dr. Henry A. Viti, 41, a veteran of World War II, died in St. Francis Hospital, Jersey City, on December 11, 1948. He had been ill for almost five months.

A native of Brooklyn, Dr. Viti had been a resident of Jersey City for four years. He was a resident physician at St. Clair's Hospital, New York and associate surgeon at St. Francis Hospital, Jersey City. During the war he saw service in the Pacific theatre of operations.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

HEALTH UNITS FOR THE NATION

Resolution adopted by the House of Delegates of the American Medical Association
December 2, 1948
St. Louis, Mo.

WHEREAS, No amount of medical care of persons already sick will substantially reduce the incidence of illness; and

WHEREAS, The traditional position of the American Medical Association has been one of firm support of public health services, in fact, this constitutes a major element of the ten-point national health program of the American Medical Association; and

WHEREAS, Large numbers of local areas and counties in the United States are not now and never have been covered by adequate sanitary and other public health services, and

WHEREAS, The Surgeon General of the U. S. Public Health Service has announced that one of his first major objectives is assistance in development of local health units throughout the nation to meet this fundamental need; and

WHEREAS, The medical profession has now an opportunity to exert constructive leadership in this matter, through the national, constituent state and component county medical societies, Therefore be it

RESOLVED, That the House of Delegates reaffirm its abiding interest in the necessity for the provision of full-time modern public health services at the local and community level, including sanitation and all public health; and be it further

RESOLVED, That the U. S. Public Health Service be commended for, and encouraged in, its efforts for the further development of local health units for these purposes; and be it finally

RESOLVED, That the Board of Trustees be commended for its efforts in furthering full-time local health units urged to continue actively all proper procedures to the end that local public health service shall become adequate throughout the nation.

DEFINITION OF PUBLIC HEALTH

Adopted by the House of Delegates of the American Medical Association at St. Louis, Missouri, December 2, 1948.

"Public Health" is the art and science of maintaining, protecting and improving the health of the people through organized community efforts.

It includes those arrangements whereby the community provides medical services for special groups of persons and is concerned with prevention or control of disease, with persons requiring hospitalization to protect the community and with the medically indigent. (The above is in agreement with the Ten-Point National Health Program of the American Medical Association.)

BETTER PUBLIC HEALTH FOR NEW JERSEY

A six-week study course "Better Public Health for New Jersey" was conducted in Newark and Trenton by the New Jersey Citizen Health Council in November and December 1948. It was well attended by representatives from many communities and will stimulate interest in local department services. Among the speakers were Dr. Wilson G. Smillie of Cornell; Dr. Harold W. Brown of the Columbia University School of Public Health; Dr. Ira V. Hiscock of Yale University; Dr. Daniel Bergsma, State Commissioner of Health and Wallace T. Eakins and Ralph T. Fisher, State Department of Health. Full proceedings of the course will appear in the February, 1949, issue of *Public Health News*.

LOCAL HEALTH COUNCILS

Formation of local health councils is being considered by groups in a number of communities. The local health officer and the staff of the local health department have a vital contribution to make to the success of such local councils. Twenty-five cents will bring you a copy of *"Stepping Stones to a Health Council"* from the National Health Council, 1790 Broadway, New York 19, New York. A reprint of *The Role of the Community Health Council* by S. S. Lifson from the July, 1948, issue of *Public Health News* is available from the State Department of Health, Trenton 7, New Jersey.

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

T. Bruce Dickson, M.D., Reporter

The regular meeting of the *Burlington County Medical Society* was held on December 9, 1948, at the Riverton Country Club. DR. SPARKS, president, called the meeting to order. DR. GARFIELD G. DUNCAN, clinical professor of Medicine, Jefferson Medical College and director of the Division of Medicine at Pennsylvania Hospital, spoke on "Practical Considerations of the Treatment of Diabetes Mellitus".

The State Department of Institutions and Agencies has arranged to place children under five years of age who are mental cases in suitable institutions. However the patient must be carefully classified before application to an institution will be considered.

The County Society Welfare Committee criticized some of the current bills which the physicians sent in to the Old Age Assistance Board.

Through Mr. Edward McComsey, the County Superintendent of Schools, arrangements have been made for the Mobile Eye Clinic for the New Jersey Commission of the Blind to examine the eyes of school children in this county.

Dr. Howard C. Curtis, announced his resignation as secretary of the society at this meeting.

CAMDEN COUNTY

Harold K. Eynon, M.D., Reporter

The regular monthly meeting of the *Camden County Medical Society* was held on December 7, 1948, at 9:00 p. m. The speaker was DR. BERNARD J. ALPERS, professor of Neurology, Jefferson Medical College, Philadelphia, whose topic was "Recent Advances in Neuropsychiatry". Dr. Alpers gave a masterful and concise resume of many factors in the large field of neuropsychiatry.

Dr. Alpers' paper was ably discussed by DRS. DENBO and YASSKIN, following which there was a short routine business meeting and adjournment.

ESSEX COUNTY

Asher Yaguda, M.D., Reporter

A joint meeting of the *Essex County Medical Society* with the Academy of Medicine of Northern New Jersey was held December 9, 1948, at the Academy of Medicine, Newark. Before the meeting, there was a formal dinner in honor of the speaker of the evening, DR. STANLEY P. REIMANN, director of the Institute for Cancer Research in Philadelphia, and pathologist and director of the Research Institute of Lankenau Hospital. About seventy-five guests of both societies attended the dinner.

The program of the evening was arranged by the Cancer Committee of the Essex County Medical Society under the chairmanship of Dr. Joseph I. Echikson. Dr. George Blackburne, president of the Essex County Medical Society, presided, and after the regular business of the Medical Society was completed, introduced Mr. James Bryan, the executive officer of The Medical Society of New Jersey, who informed the members of the results of the meetings of the American Medical Association in Chicago and St. Louis and enumerated the various steps which are being taken to inform the public of the doctors' viewpoint concerning compulsory health insurance. The meeting was then turned over to Dr. Earl LeRoy Wood, president of the Academy of Medicine, who welcomed the audience and the invited guests to the Academy of Medicine. Dr. Echikson introduced the speaker of the evening, Dr. Reimann, who spoke on the "Random Relationships of Cancer Research to Clinical Medicine".

The meeting was adjourned at 11 p. m., with a rising vote of thanks to Dr. Reimann for a most interesting and instructive evening.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The November meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club on November 18, 1948, with DR. FREDERICK J. FAUX in the chair. Dr. Collins served as acting secretary in the absence of Dr. Bowersox. The minutes of the September meeting were read and approved.

The agreement regarding treatment of clients of the old age assistance was approved; this was to be signed shortly. A similar agreement with the State Board of Child Welfare was to be drawn up by Dr. Wright's committee.

After some discussion it was decided to go along with the county authorities in their attempt to set up a special county physician or coroner consultant position.

Again, after discussion, it was moved and approved that a $5.00 assessment be added to our dues, this money to go to the National Physicians Committee to aid in the task they are doing.

The following were elected into full membership: DR. ROBERT C. PUFF of Woodbury, DR. ELI C. CLAIR of Mantua and DR ROBERT B. HUTCHESON of Woodbury. DR. JAMES G. KEHLER, JR. of Woodbury was accepted by transfer from Mercer County.

The scientific program was in the form of an illustrated talk by JOHN E. LEACH, M.D., of Paterson, N. J., and The Memorial Hospital in New York City. Dr. Leach's topic was "The Delay Factor in the Diagnosis of Cancer". Dr. Paul Menninger of Woodbury initiated the discussion which followed this very interesting, instructive and timely paper.

DR. FRED FAUX presided at the regular monthly meeting of the *Gloucester County Medical Society* held at the Woodbury Country Club, December 16, 1948. In spite of the inclement weather, a good crowd was on hand and fairly early.

EDWARD WEISS, M.D., professor of Medicine at Temple University School of Medicine, spoke at the beginning of the meeting as he was leaving early the next day for the west. His topic was "The

Psychosomatic Approach to Hypertension". The paper was very interesting and numerous questions were answered by Dr. Weiss.

In view of the imminent assessment by the A.M.A. it was voted to cancel the proposed assessment for the National Physicians Committee.

Mr. James E. Bryan, State Executive Officer, then discussed several important matters, among them the proposed $25 for the A.M.A. He decried the unfortunate early publicity the above had received and stated that we would soon receive publications on the matter for our own elucidation as well as information for the public. The possibility of a special meeting of the House of Delegates of our society to consider this matter was mentioned. Mr. Bryan also discussed the new Cash Sickness Benefits Law and said it was up to the doctors to make it work.

After adjournment, refreshments were served.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

Hudson County Medical Society held its second regular monthly meeting of the season at Murdoch Hall on November 3, 1948. Dr. D'Acierno presided.

Reports were received from the following committees: Public Health Week, Constitution and By-Laws, Study of Medical-Legal Testimony and Diabetes Week.

Elected to membership were: Drs. Richard F. Buckley and Charles E. Woltmann of Hoboken; Malvin Finkelstein, Harold W. Grossman, Norval F. Kemp, Carroll M. Leevy, Irving Marshall, Francis E. Rieman, Chester R. Rydwin, Irvin Sussman and Leonard Troast of Jersey City; Randolph A. London of North Bergen; Howard E. Baldwin of Union City; Henry Frankel and Joseph Lo Buono of West New York; and Wallace T. McCaffrey of Weehawken.

Reinstated to membership were: Drs. Ferdinand J. Pflug of Hoboken; Andrew J. Bruder, David K. Pinks and Paul F. Sinclair of Jersey City; George Kerdasha of North Bergen; and Scipio H. Africano of Union City.

The guest speaker was Dr. Elmer K. Sanders Department of Surgery, The Presbyterian Hospital, New York City, whose subject was *Recent Advances in the Chemotherapy of Surgical Infections.* Discussants were Drs. Katz, Goldsmith and Irving Marshall.

A buffet supper followed adjournment of the meeting.

Hudson County Medical Society held its third regular monthly meeting of the season at Murdoch Hall on December 7, 1948. Dr. D'Acierno presided.

Tentative plans of the Committee for Postgraduate Medical Education for 1949 were reported by the chairman, Dr. Ginsberg. The completed arrangements for the local observance of Diabetes week from December 6 - 12 1948, were announced by Dr. Jacob Fineberg, chairman, Diabetes Week Committee.

The following physicians were elected to membership: Dr. John S. Bogacz, Dr. Peter J. Cetta and Dr. Noah Feldman of Jersey City; Dr. Robert F. Greene and Dr. Michael A. Marano of Union City; Dr. Vincent V. Raccuia of West New York and Dr. Carl Rother of Weehawken. Reinstated to membership were Dr. Charles Sirken of Jersey City and Dr. Anthony R. Picollo of Union City.

The scientific session featured Dr. Paul Reznikoff, professor of Clinical Medicine, Cornell University Medical College and attending physician, New York Hospital, who spoke on *The Diagnosis and Treatment of the Anemias.* The discussant was Dr. Landshoff.

Upon adjournment of the meeting, a collation was served.

HUNTERDON COUNTY

H. A. Davidson, M.D., Reporter

On October 26, 1948, the *Hunterdon County Medical Society* met at the Doric House in Flemington, with the president, Dr. E. S. Merrill in the chair. Transfer to the society of Dr. Joseph Smith, medical director of the State Sanitarium at Glen Gardner, was unanimously approved. The chair appointed Dr. Henry Dantzig as our representative to the state's Rural Health Committee. There was discussion of the proper screening of the publicity being prepared for the Rural Health Conference by our Woman's Auxiliary, and, on motion, Dr. John Fuhrmann was named to receive and pass on all material being offered for publication in connection with that project.

Receipt was acknowledged of a communication from The Medical Society of New Jersey asking our county's nomination for the outstanding general practitioner. With the hearty approval of all members present, Dr. Edgar W. Lane was selected as our candidate for this honor and the secretary, Dr. Philip W. Baker was designated to draft a suitable citation. Then, on behalf of the Hunterdon County Medical Society, Dr. Barclay S. Fuhrmann presented a scroll, a key and a brief address to Dr. Frederick Decker in recognition of his fifty years of active service as a practitioner. (This was reported in more detail on page 526 of the November 1948 Journal). This was followed by two other features, a talk on medical writing by this reporter, who is editor of the Journal of The Medical Society of New Jersey, and a nostalgic account of early practice in Hunterdon County by Dr. George N. J. Sommer, of Trenton, an honorary member of our society; on which pleasant note, the meeting adjourned.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The regular monthly meeting of the *Mercer County Component Medical Society*, scheduled for December 8, 1948, was cancelled, since the Sixth Clinical Conference of the State Society had been arranged for that date.

The Mercer County Society is justly proud of the enthusiastic response, manifested in the large attendance, to the cordial invitation extended to the medical profession of New Jersey.

Without describing in detail the versatile program that had been carefully prepared, suffice it

to say at this time, that 365 physicians attended and that 193 remained to participate in the sociability accompanying the banquet in the evening.

The entire personnel responsible for the efficient manner in which the Conference was conducted commands our sincere commendation.

The special meeting called for the purpose of considering a revision of the Constitution and By-Laws, held December 15, did not arouse the attention of the members,—no doubt the inclemency of the weather contributed to a considerable degree for the slim attendance.

However, so important a subject should appeal to the great majority interested in the policies and purposes of the medical profession generally.

Dr. A. A. Carabelli, chairman of the committee, assisted by Drs. Raymond E. Miller and B. Earl Smith appointed by President George A. Corio M.D., for the purpose of revising the Constitution and By-Laws, patiently read each paragraph, explaining in detail and with justifiable reasoning the various changes introduced.

Many questions and objections were propounded and debated regarding what appeared to be drastic substitutions or alterations, all of which were satisfactorily settled following a most constructive discussion.

The substitution of a "Council" in place of an Executive Committee, brought forth strenuous objections, since there appeared to be unlimited authority invested in the various subcommittees comprising the "Council".

Following a most thorough discussion of the various problems involved, in which Dr. Carabelli demonstrated his deep interest and acquaintance with the many ramifications depending upon parliamentary procedure, the clarification and interpretation of the various changes were satisfactorily settled, and upon motion by Dr. Wikoff, seconded by Dr. Cottone the revised and amended Constitution and By-Laws was adopted.

The Committee demonstrated beyond doubt its conscientious study and untiring effort in consulting other County documents, and in its research involving the policies of the State and National Societies, for all of which the society members should feel deeply appreciative.

Copies of this revision will soon appear in booklet form.

MIDDLESEX COUNTY

Anthony J. Pellicane, M.D., Reporter

The regular monthly meeting of the *Middlesex County Medical Society* was held on November 17, 1948, at Roosevelt Hospital, Metuchen, with the president, DR. EDWARD F. KLEIN, presiding.

The following members were elected: Associate member—DR. S. DERN, Woodbridge; Regular members—DR. LOUIS F. GOULD, ALEX K. NIEMIERA, Perth Amboy; JAMES S. WINN, New Brunswick; MARIE IDELCOWITZ, South River; OTTO WALKER, Carteret; Regular members on transfer from other Societies—DRS. VINCENT J. FAZIO, South Amboy from Monmouth County Medical Society; THOMAS M. THOMPSON, New Brunswick from Bucks County Medical Society, Penna.; MARTIN HENRY LUTZ, Roselle, from the Medical Society of the County of Kings, Brooklyn.

Dr. N. N. Cole, chairman of the Nominating Committee read the report of officers for 1949 as follows:

President—DR. F. M. CLARKE, New Brunswick, Vice-President—DR. H. P. FINE, Perth Amboy, Secretary—DR. R. A. BARNHARDT, Parlin, Treasurer—DR. G. J. KOHUT, Perth Amboy, Reporter—DR. JAMES S. WINN, New Brunswick. Delegates for three years—DRS. F. M. CLARKE, B. F. SLOBODIEN, H. COPLEMAN; Alternates—DRS. CARLYLE MORRIS, JAMES LUCEY, N. KARSHMER. Nominating Delegate to The Medical Society of New Jersey 1949 Annual Meeting—DR. F. S. TABER; Alternate—DR. EDWARD F. KLEIN. Board of Trustees—DRS. STANLEY A. GADEK, C. W. NAULTY, HENRY A. BELAFSKY, IVAN B. SMITH, IRA H. DEGENHARDT, G. R. GESSNER, C. E. HESSELTINE, E. A. HAUBER, M. F. URBANSKY.

Dr. Edward Brezinsky, chairman of the Program Committee, announced that the annual dinner meeting would be held at Mario's Restaurant, Metuchen, on December 15, 1948.

Dr. F. M. Hoffman, reported for the Code of Ethics Committee that the presentation of the Contract Practice Section of Principles of Medical Ethics was referred to the Committee for final adjustment and legal approval.

The following resolutions were passed:

DR. GEORGE W. FITHIAN

WHEREAS, the inexorable passage of time and infirmities has brought an untimely end to the career of Dr. George W. Fithian, the Middlesex County Medical Society desires to pay its respect to this member who, during his medical career, has shown an unswerving loyalty to the ethical support of his fellow practitioners, not only to those in his own community, but to the work of The Medical Society of New Jersey, of which he was a Trustee. His regard for the needy was demonstrated by his work in preparing the "Middlesex Plan". His loyalty to his country was shown by his services in World War I. Be It,

THEREFORE RESOLVED that this Society adopt this Resolution, that it be spread upon the Minutes, and a copy sent to the bereaved family.

GENERAL PRACTITIONERS AWARD

WHEREAS, it would seem that any physician in General Practice for over 25 years in this state would be worthy of any honor bestowed upon him by The Medical Society of New Jersey; and,

WHEREAS, there is no apparent plan of decision as to what rules should be made as a guide in making such an award; and,

WHEREAS, it would seem more practical to have a committee composed of members of The Medical Society of New Jersey who are not members of the immediate family of The Medical Society of New Jersey;

THEREFORE, be it resolved that the Middlesex County Medical Society petition the Board of Trustees of The Medical Society of New Jersey to consider a plan to be used as a guide for the New Jersey General Practitioner's Award, only and either, or the testimonial of a member of The Medical So-

ciety of New Jersey, or the testimonial of a county society.

HEALTH WEEK

Whereas, there is a wide difference of opinion as to the value of a so-called "Health Week"; and,

Whereas, there seems to be considerable disapproval of the method used in the plan for a "Health Week" as previously presented;

Therefore, be it resolved that the Middlesex County Medical Society petition the Board of Trustees of The Medical Society of New Jersey, to offer a cash award for an essay on "The Conduct of a Health Week", which would among other things define the purpose, the advantages, and the plan of presentation which in effect would not be offensive to so many members of The Medical Society.

Dr. Fine made a motion that a physician be appointed to the Baby Health Stations to supervise the work, and that the previous law in the By-Laws be rescinded.

The guest speaker of the evening was Dr. Ernest S. Little, Dean Emeritus of the New Jersey School of Pharmacy of Rutgers University. He spoke on "Facts of Interest to Physicians and Pharmacists."

Drs. Fine and Hoffman reported that the Public Health Week Exhibitions held in Perth Amboy and New Brunswick proved to be a very successful endeavor.

The meeting was adjourned at 11:30 p. m. following which a collation was served in the hospital dining room.

MONMOUTH COUNTY

Lester A. Barnett, M.D., Reporter

The regular monthly meeting of the *Monmouth County Medical Society* was held as a joint meeting with the Monmouth County Bar Association on October 27, 1948, at the Monmouth Memorial Hospital, Long Branch, with Dr. Harry R. Brindle, president-elect, presiding.

Dr. Samuel Becker, Washington, D. C., Fellow of the American Association of Industrial Physicians and Surgeons, spoke on *"Your Witness"*, stressing the physician's rights and conduct in court. Other aspects of medico-legal practice were discussed by Theodore D. Parsons, Counselor At Law.

Dr. Norman Thedford of Eatontown and Dr. Alvin A. Weinstein of Asbury Park were elected to full membership. Dr. Harry F. Hutchinson of Spring Lake, Dr. Herman O. Wiley and Dr. Alice D. Tyndall of Red Bank were elected to associate membership.

The final plans for Public Health Week to be held at the Asbury Park Convention Hall were presented to the group. The contract for medical care of recipients of old age assistance was approved for renewal. The meeting closed with a discussion on the merits of joining, as a group, the National Physicians Committee.

The regular monthly meeting of the *Monmouth County Medical Society* was held on November 17, 1948, at the Monmouth Memorial Hospital, Long Branch, with Dr. Frank J. Altschul, president, presiding as moderator for a panel discussion on *Peripheral Vascular Disease.*

Sitting on the panel as experts were Dr. Irving S. Wright, associate professor of Medicine, Cornell University, Dr. Samuel Silbert, director, Peripheral Vascular Disease, Mount Sinai Hospital, New York, and Dr. Harold A. Zintel, assistant professor of Surgery, University of Pennsylvania Medical College. They discussed pertinent questions selected from those submitted by the members of the Society during the weeks prior to the meeting. A few of the topics treated were varicose veins and ulcers, venous stasis, lymphedema, scalenus anticus syndrome, acute arterial occlusion, obliterative arterial disease and anticoagulant therapy in myocardial infarction.

A brief business meeting concluded the session.

SOMERSET COUNTY

H. E. Cook, M.D., Reporter

The *Somerset County Medical Society* held its regular monthly meeting November 18, 1948, at the Somerset Hospital Nurses' Home, with Dr. A. F. Mangelsdorff presiding.

A report of the Public Health Committee was received concerning the activities of Public Health Week. Drs. Emerson F. Hird and George A. Glass were given a rising vote of thanks for their splendid work in connection with these activities.

Dr. George A. Glass introduced Morris Bruger, M.D., head of Department of Biological Chemistry and associate professor of Medicine, Post Graduate Hospital, New York City. Dr. Bruger addressed the Society on *Fluid Balance.* He presented the common errors in evaluating true loss of tissue fluids and stressed the importance of judicious choice of therapeutic measures to bring about replacement of fluids lost in various pathological conditions.

Following adjournment at 10:30 p. m., a collation was served by the Somerset Hospital Nursing Class of 1949.

The regular monthly meeting of the *Somerset County Medical Society* was held on December 9, 1948, at the Somerset Hospital Nurses' Auditorium, with Dr. A. F. Mangelsdorff presiding.

A short business session preceded the scientific portion of the program. It was voted that a letter of thanks be written to Mr. G. B. Meynell, Director of Publicity, Calco Chemical Co., Inc., for his assistance with our Public Health Week program. Dr. Samuel H. Pogoloff reported on the Maternal Health Center and set forth the requirements for referring physicians. The question of dues was discussed and referred to the Executive Committee.

C. N. Baganz, M.D., chief of the Veterans Hospital at Lyons, N. J., gave a very interesting discussion of *Psychosomatic Medicine and the General Practitioner.* Dr. Baganz stressed the importance of the family physician taking his full share of responsibility in the care and treatment of the ever increasing number of psychosomatic disorders.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

Mrs. Robert B. Walker

Upon the advent of the new year, it is essential to search our minds and motives and take toll of the things we have accomplished in the past and evaluate our resolutions for the future. Let us not be unmindful of the fact that although we as an auxiliary traveled far in the past twenty-one years the road that lies ahead needs courage, stability and ever increasing work on the part of each member.

There are those who would stand idly by while a fellow member shoulders the responsibilities and carries the work of broadening the functions and scope of the organization.

We are attempting to formulate a public relations program that will have continuity through the years, and we hope for the full cooperation and support of each member so that the time and efforts spent on our plans may be fruitful and of infinite value to the Medical Society.

In our endeavors this year let us be ever mindful of the words of Rudyard Kipling:

> "And only the Master shall praise us,
> And only the Master shall blame;
> And no one shall work for money,
> And no one shall work for fame;
> But each for the joy of the working,
> And each in his separate star,
> Shall draw the Thing as he sees It
> For the God of Things as They Are."

May the New Year be filled with blessings for all of you and may it bring to the world 'Peace on earth, good will toward men'.

COUNTY AUXILIARY MEETINGS

At the regular monthly meeting of the Woman's Auxiliary to the Atlantic County Medical Society on December 10, 1948, final plans were made for a formal dance to be held on January 15 for the benefit of the Student Nurses Scholarship Fund. Mrs. Max Gross, program chairman, presented a very clever skit entitled "Bundles for Christmas".

The Woman's Auxiliary to the Bergen County Medical Society met on October 19, 1948, with Mrs. Floyd Keir, presiding. All members present accepted the challenge to assist the Maternal Welfare Committee of the county society in establishing an Rh Negative Blood Donors Club for the area. Dr. Felix Vann presented the plans and gave an excellent account of the present overall need. At the regular monthly meeting on November 19, 1948, plans for a Christmas party to be held on December 11 were discussed. Following the resignation of Mrs. F. Muller, Mrs. E. D'Amato was voted recording secretary. It was announced that the Rh Negative Blood Donors Club is being advertised on Station WPAT daily. Capt. Quinn of the Englewood Fire Department spoke on "Fire Prevention".

On December 6, 1948, the Woman's Auxiliary to the Hudson County Medical Society held its annual Christmas party at Bruno's, Jersey City, with the president, Mrs. William Gleeson, presiding. The membership committee presented a list of seventeen applicants, who were elected to full membership. An interesting story of the origination of the Christmas card was told by Miss Dorothea Norton, a member of the New York Women's Press Club. Professor Charles Manfre of Jersey City gave several violin selections and Mrs. Andrew Pecoraro sang.

Mr. William Hassinger of the U. S. Treasury Department and Dr. Robert E. Bennett, clinical director of the New Jersey State Hospital addressed the Woman's Auxiliary to the Mercer County Medical Society at their regular meeting on November 22, 1948. Dr. Bennett outlined a plan to start a volunteer aide group at the State Hospital. The first meeting of the volunteer aides, under the chairmanship of Mrs. Charles C. Cohan, was held at the State Hospital on December 14, 1948, at which time the group was taken on a tour of the hospital by members of the Staff. Over fifty women attended. A Subscription Dance is planned for February 19.

The "Turkey Trot", annual dance of the Woman's Auxiliary to the Union County Medical Society, was held on Thanksgiving Eve at the Chanticler, Millburn, for the benefit of the Union County Student Nurse Scholarship Fund. About 160 guests attended and many door prizes were awarded. Entertainment was provided by Arthur Murray dancers and Mr. DuBois of the WOR Entertainment Bureau, a skilled magician.

BOOK REVIEWS

Diagnosis in Gynaecology. By James V. Ricci, M.D. Pp. 247. Philadelphia, The Blakiston Co., 1948. ($4.50.)

It is surprising to find a book devoted to gynecology without a single illustration. Consisting of fourteen chapters, this is a classification of gynecologic diseases based on etiology and "clinical logic".

The first two chapters deal with the anatomy and embryology of the genitalia and with the sex hormones. Although concise and well written, these are superfluous and add little to the value of the book.

In the chapter on the gynecologic examination, the author, with tongue in cheek, derides the common practice of teaching medical students to use their left hand in doing vaginal examinations. All instructors in gynecology should note this well.

This book should be of particular aid to the medical student because (despite its briefness) it contains a large amount of practical advice and factual information. However, it can supplement to only a small degree, the standard texts in gynecology.

IRVING FAIN, M.D.

Failures in Psychiatric Treatment. Edited by Paul Hoch, M.D. Grune and Stratton, New York. 1948. Pp. 241. ($4.50.)

Willingness to admit failure is a sign of maturity and the present volume represents a unique review of therapeutic failures in psychiatry. The work is divided into 15 chapters, each written by a different author, each covering a different area of psychiatry. As might be expected the anthology is of uneven quality. For instance, the chapter on failures in psychoanalysis, mentions only with casual brevity the factor of poorly handled transference—though this is surely the number one cause of failure in psychoanalysis. The section on psychobiology is so defensive of the technic as to constitute an explanation of the method rather than an accounting of failures. By contrast, Wolberg writes a wise and witty chapter on failures with hypnosis.

There is a chapter on the psychiatric treatment of criminals which, curiously enough, details successes rather than failures. Extensive and competent study is made of failures in the psychotherapy of children. This is followed by a systematic treatise on failures in psychosomatic management.

Group therapy is discussed but the subject of the book is skirted with the explanation that an analysis of failures would be premature at this time.

Particularly useful and objective are chapters reviewing failures with lobotomy and shock therapy. The body of the book closes with an honest study of failures in social casework.

The final, and in some respects the best part of the volume is the summary by Dr. Hoch which compactly appraises each chapter and which furnishes the integrating thread that converts this anthology into a unified pattern.

HERBERT BOEHM, M.D.

Occupational Marks and Other Signs: A Guide to Personal Identification. By Francesco Ronchese, M.D. New York, Grune and Stratton, 1948. 200 Pp. ($5.50.)

This excellent, unusual (and probably unique) monograph is jam-packed with pertinent facts and telling photographs on the effects of labor and hobbies on the human frame. While the author is especially interested in skin changes, ample consideration is given to all the structures of the body influenced by the vocations and avocations of man. Occupational markings of dozens of jobs get particular note and the 151 photographs and drawings clarify the text.

Dr. Ronchese's timely and attention-arresting monograph fills a long felt gap in the professional literature. The book is printed on glossy paper, the photographs are clear and the text is readable.

IRVING SHAPIRO, M.D.

The Case Against Socialized Medicine. By Lawrence Sullivan. The Statesman Press, Washington 4, D. C. Pp. 53. 1948. ($1.50.)

Released a few weeks prior to the last Congressional election, this booklet is a summary of the testimony against the W-M-D bill presented at the 1946 and 1947 hearings. It has a faintly nostalgic flavor, scented with an odor wafted from the distant past. Thus, Mr. Sullivan argues that under the W-M-D bill "every doctor, every dentist, every nurse would be on the federal payroll". He also fears that "this campaign stems directly from the Kremlin" which is the first revival of the charge of "Moscow gold" since the 1930's. The arguments are those familiar to all American physicians (regimentation, government corruption, communist origins, red tape, huge cost, bureaucracy, discouragement of initiative, etc). The booklet will prove useful to physicians who need some briefing before entering a debate on health insurance against an opponent who is not too well documented.

HENRY A. DAVIDSON, M.D.

A Manual of Pharmacology and its Applications to Therapeutics and Toxicology. By Torald Sollmann, M.D. 7th ed. W. B. Saunders Company, 1948, Philadelphia ($11.50).

This seventh edition, completely revised, remains as one of the foremost texts and ready references on pharmacology in modern medicine for physicians and interns. Local and general anesthesia, allergic phenomena and reactions, temperature control, digitalis and derivatives, sulfonamide compounds, anti-biotics, dicumarol and heparin have been thoroughly covered. A complete bibliography follows. When this reviewer reflects upon the scope of this reference work and the vast amount of experience and research that the author has tirelessly put into it to keep it up to date, the dominant impression is one of admiration for the compiler. We recommend this new edition as an invaluable asset to any physician's library.

LOUIS SIMONSON, M.D.

The Oculorotary Muscles. By Richard G. Scobee, M.D., St. Louis, C. V. Mosby Company. Pp. 359. 1947. ($8.00.)

Dr. Scobee has taken Chavasse as his principal "guide, philosopher and friend". Many paragraphs —even pages—are direct quotations from the latter authority. Scobee differs from most authorities in one thing, and we quote him directly: "It is the practice of measuring with prisms the deviation by the cover test, both lateral and vertical deviation, in the six cardinal directions of gaze. The chief reason for such an apparently grievous omission is the simple fact that in children such a measure is extremely difficult and usually very inaccurate, while in patients in whom such a measurement can be made accurately, that is, in older children and adults, there are simpler and more accurate methods available. There seems, therefore, to be no good reason to make a fetish of carrying out this routine but generally inaccurate procedure just because others have done it for years." In the appendix is a discussion on the use of the Maddox Rod. This should have appeared much earlier in the work, i.e. in the discussion of heterophoria. The section on surgical principles is good; that on surgical technic is too short. The book is only adequate in the discussion of the principles of extraocular muscles but the section on "Making the diagnosis" is very good. It is fairly successful in meeting the very practical problem of how to make a diagnosis. It is for this reason that the book can be highly recommended.

MAURICE KLEINMAN, M.D.

The Shame of the States. By Albert Deutsch. Introduction by Karl Menninger, M.D. Harcourt Brace and Company, 1948, New York. Pp. 188. ($3.00.)

In a camera-documented round-up of conditions in the state mental hospitals, Mr. Deutsch takes us on a distasteful but necessary tour. State hospitals, in general, were found to be overcrowded, understaffed, and poorly equipped. Professional morale was low, patients were occasionally brutalized and often neglected. In a challenging introduction, Dr. Menninger underscores the lesson of Mr. Deutsch's analysis, but adds that "there are numerous state hospitals where every effort is made to do what should be done, where staff is adequate, where no patient is abused or neglected. Massachusetts, Connecticut, New York, New Jersey and Delaware are outstanding examples in this respect, and have made a sustained effort to achieve a modern progressive state hospital system."

While these are satisfying words to the New Jersey profession, we know that our own state hospitals still fall far short of the modest standards set by the American Psychiatric Association. Mr. Deutsch's book is an unpleasant but ultimately salutary reminder of our shocking neglect of a helpless, but by no means hopeless, segment of our population. It should be required reading of all legislators just before budget time.

L. J. BARONE, M.D.

A Textbook of Clinical Neurology. By Israel S. Wechsler, M.D., 6th ed. Pp. 829. Phila., W. B. Saunders Company, 1947. ($8.50.)

Two decades have passed since Dr. Wechsler wrote the first edition of this text. Now throughout this text the author calls for a firmer foundation in the facts of the function and structure of the nervous system rather than the semantic adroitness that is so much abroad whereby to coin a phrase is to create a fact.

The goal of this book is to create a fairly complete repository of as much factual knowledge of clinical neurology as can reasonably be gathered between two covers.

The book is divided into five parts. The first, on methods of examination, far surpasses any of the other standard texts in this regard. Dr. Wechsler here has been able to load each page with just the meat. Its simplicity is deceptive. At first glance this section seems usual but on closer observation it is seen that every word counts heavily in these first hundred pages. In this part the author's brother, David, contributes an excellent summation on diagnostic tests and technics.

Part Two deals with the spinal cord. Here the presentation of the muscular atrophies and the author's handling of the subject of poliomyelitis are masterpieces of editorial skill. It is in this section that we see the wisdom of the selectively limited description of the neuroanatomy and neurophysiology under discussion.

Part Three includes the peripheral nerves. While most of this part is superior the reviewer wonders somewhat at the dispatch with which the subject of herpes zoster is handled. Mention should be made of the excellent and orderly approach and subdivision of each disease discussed. At first a general statement is given, then a paragraph on symptoms followed by course and prognosis and a concise statement of pathology. When indicated, a paragraph on differential diagnosis and treatment is summarized.

Part Four deals with the brain. This makes up the principal portion of the text. Dr. Wechsler has, by careful arrangement, presented a vast variety of subjects. Here his exposition of meningitis and encephalitis is excellent as well as the restraint he shows in discussing many of the rarer syndromes in stating the known facts and giving but the briefest of mention to theoretical possibilities.

In Part Five, Dr. Wechsler gives one of the best short discussions on the neuroses this observer has seen. While everything said in this section would not meet with universal agreement there is no doubt that Dr. Wechsler will give to his readers an excellent understanding of the basic factors involved in the neuroses.

The author has added to his very excellent text an introduction to the history of neurology. This part is difficult to read due to the crowding in of so many facts. For those who like their history written for easy absorption these forty pages will not be inviting but for those who want the maximum facts with the minimum in words this sixth edition of Wechsler's text is the book to buy.

JOHN L. KELLY, M.D.

Standards for the Diagnosis and Treatment of Cancer. By The Cancer Committee of the Iowa State Medical Society. 146 Pp. Iowa City, Athens Press, 1948. ($1.00.)

This is the second edition of a popular manual originally published for physicians of Iowa in 1937. The 1937 edition required reprinting and some 50,000 copies were sold. The text has been brought up to date and contains a selected bibliography on cancer, arranged according to anatomic sites.

The sequence of descriptive material follows a uniform pattern: early signs, late signs, history, differential diagnosis, treatment and prognosis.

The general practitioner will find this book invaluable; the specialist can appease some of his curiosity regarding lesions not coming within his special sphere. The outward appearance of the manual is not pretentious, the cost having been held to a minimum; "'tis the quality of writing that counts."

To those who are called upon to speak on cancer topics, it will prove a handy reference volume, a time-saver and a sight-saver.

L. S. Snegireff, M.D.

Understandable Psychiatry. By Leland E. Hinsie, M.D. Macmillan, New York, 1948. Pp. 359. ($4.50.)

"Psychiatry is a study of regressive phenomena." This is the axis around which Dr. Hinsie's book revolves. Psychiatric disorders are presented in terms of their dynamic development out of, and their symptomatic regression back to, childhood or infancy. It is a book for literate laymen, and it is one which any practitioner can recommend with confidence. For that matter, it will do the doctor no harm to read it either. It is not written in the words-of-one-syllable-style so common in "popular" scientific works today. Take for instance, a sentence like this: "Thanatotic instinctual components permeate the oral zone". Torn out of context, this sounds like gibberish to any non-psychiatrist. However if the reader perused the text thoughtfully, learning as he goes, building on what he learns, the sentence would be comprehensible enough, since it doesn't appear until the middle of the book.

Structurally, the volume is divided into nineteen chapters, bearing such titles as "How Feelings Make Us Sick", "Troublesome Character Traits", "Change of Life", "Antisocial People". The psychosomatic concept is welded into the fabric of the book, so that there is no artificial dichotomy of functional vs. organic symptoms, but rather a constant orientation to the patient as a total person. The text is replete with case material. Illustrative cases form the skeleton on which are draped the theoretical concepts of personality development and breakdown. My only objection to the style is that the author heckles us on almost every page with too many italics. These wearying overemphases are quite unnecessary, since even in plain roman type, Dr. Hinsie writes vividly, interestingly, and understandably.

Henry A. Davidson, M.D.

Mathematical Methods for Population Genetics. By Gunnar Dahlberg. Interscience Publishers, New York, 1948. Pp. 182. ($4.50.)

The medical practitioner will have to brace himself intellectually before dipping into this erudite little volume. Unless the doctor can talk freely about monohybrid diallelous characters, and handle the higher mathematics comfortably, he will find himself lost in a jungle of formulae. He will learn that sterilization of adults with rare defects will have no appreciable effect on the frequency of those defects; that the gradually increasing stature of the American adult is not due to his superior living conditions; that self-made men as a rule represent persons with desirable intellectual and undesirable moral characters; that we're all related (because the ancestors of one person carried back 30 generations, gives him an ancestry of a billion grand-grand-etc-parents and there weren't that many people in the world then); that degenerative diseases are not due to degeneration; and that it might be in the interests of society to retain gifted persons in the "lower classes" in order to maintain their high fertility rates.

The book repays study, but cannot be recommended for light spring reading in a garden hammock. It will provide food for thought and food for talk to the gynecologist, the public health expert, and indeed to any scientist interested in population growth. But it is a volume which does not release its gems easily.

Victor Huberman, M.D.

Advances in Military Medicine; Made by American Investigators working under the Sponsorship of the Committee on Medical Research. Edited by E. C. Andrus and Tuckerman Day. (2 volumes.) Boston, Little, Brown & Company, 1948. ($12.50.)

This is a stupendous compilation of all the important research done in the fields of medicine, surgery, aviation medicine, physiology, chemical warfare, anti-pest agents, adrenocortical steroids, malaria, penicillin and sensory devices. It is a publication of a governmental medical research group, known as the Committee on Medical Research, and the parent organization, the Office of Scientific Research and Development.

Although printed in small type, the articles are brief and summarize the high-lights. In medicine, chapters on infectious diseases, venereal diseases and tropical diseases are replete with all the data of the war experiences. The burn problem and the repair of peripheral nerve lesions are among the valuable chapters in the section on surgery. Other subjects of pertinent interest include shock, blood substitutes, malaria and insecticides.

The complete bibliography of all the monographs supplementing the subjects in the text is in itself reason enough to have this treatise on every medical library shelf. It is a veritable cumulative index of World War II medicine.

Edward C. Klein, Jr., M.D.

VOLUME 46
NUMBER 1

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **January, 1949** **No. 1**

"DOCTOR, should I do any flying?" Many patients with tuberculosis of the lungs want an answer to this sometimes difficult question. Whether or not it is wise for them to fly depends on a number of things. Some can do it safely. The rest are facing danger.

HAZARDS OF FLYING FOR TB PATIENTS

Air on the ground is much heavier than it is a mile or two up. At sea level it exerts a pressure of 15 pounds on each square inch of the body surface, which is not felt because it presses equally on all sides. This pressure diminishes rapidly as one rises from sea level. In other words, the higher one goes, the lower the pressure.

Inside Air Expands

A toy balloon has rubber walls that stretch. Take this ballon up in the sky and it will get bigger because the air inside expands as the pressure of the air surrounding the balloon decreases.

Many patients with pulmonary tuberculosis have abnormal collections of air in their bodies. A cavity in the lung represents such a collection—so do pneumothorax and pneumoperitoneum. They are major hazards in flying since they behave like the balloon.

The size of these abnormal collections of air will vary with the height above sea level. They will become seven per cent larger at 2,000 feet, about 50 per cent larger at 10,000 feet and nearly 100 per cent larger at 16,000 feet.

Commercial planes usually fly below 10,000 feet. They may have to fly higher when crossing mountains or encountering storms. At any height, changes can be expected in all collections of air.

Breathing Hazards

A refill for pneumothorax or pneumoperitoneum is calculated to produce the right pressure on the lung. A bigger refill might do harm. Going up in an airplane is just like getting a bigger refill.

Flying is definitely hazardous for those who have pneumothorax complicated by adhesions as they may break or they may pull hard enough to rip the surface of the lung. Air will then leak into the pneumothorax air pocket and dangerously increase its size. Massive increase will push the heart toward the opposite side of the chest and compress the opposite lung. If respiration is embarrassed, the patient may become alarmingly short of breath, have palpitation, sudden weakness, even shock.

Some patients have pneumothorax compressing both lungs. Their capacity to breathe is much diminished. Flying for them is contraindicated as it can well bring on severe shortness of breath and other frightening symptoms.

Pressure and Hernia

Beneath the breast bone one lung is separated from the other by a group of structures known as the mediastinum. This mediastinum has several weak spots. Through these a pneumothorax may bulge into the opposite side of the chest. This is called a hernia of the mediastinum and is not without danger even on the ground. In flight, such a situation can become exceedingly uncomfortable.

Those patients who notice discomfort after pneumothorax or pneumoperitoneum refills will certainly have greater discomfort when flying. Those who are short of breath on exertion will have more difficulty when flying. Patients who have recently bled from the lungs should postpone any thought of flying because of the danger of reopening the blood vessel.

Cavities produced by tuberculosis frequently contain air which expands in flight. When air can escape from a cavity the danger is minimal. If an obstruction is present the trapped air in expanding may tear the walls of the cavity or injure a blood

vessel with subsequent bleeding which can threaten life.

To prevent serious discomfort or damage, some patients may have to breathe oxygen through a mask when flying. Other patients will fare better if air is removed from their pneumothorax or pneumoperitoneum before they fly. Airplanes that fly far above the earth, 20,000 or 30,000 feet, are pressurized. Pumping systems maintain an air pressure inside the cabins simulating conditions much closer to the ground. Otherwise, no one could remain alive at those heights. Nevertheless, a few patients face danger in a pressurized airplane because the pressure in the cabin cannot be kept at ground level values.

The tuberculous patient is wise who consults his doctor before he flies.

Hazards of Flying for TB Patients, Ezra Volk Bridge, M.D., The NTA Bulletin. May, 1948.

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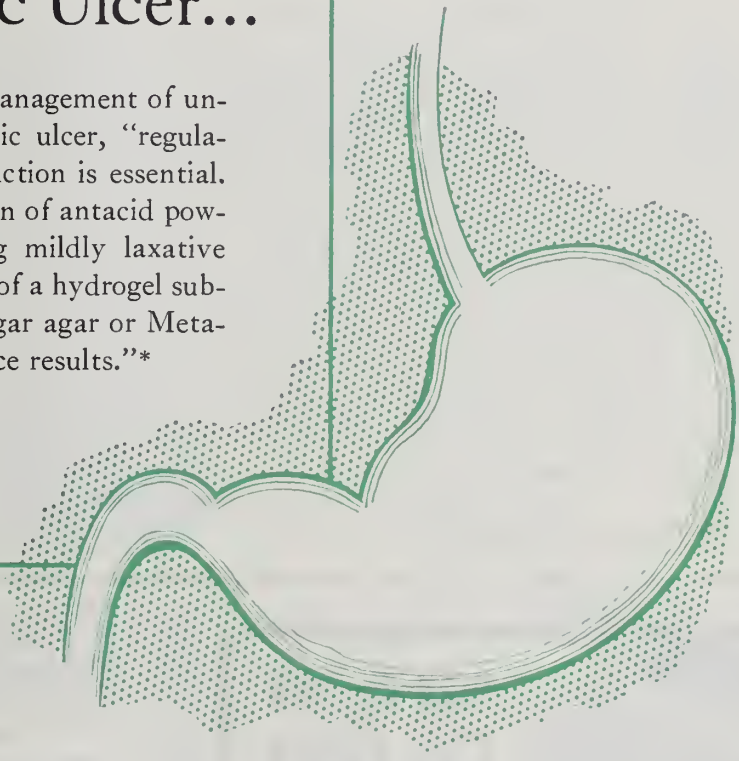
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*Gerendasy, J.: Modern Treatment of Peptic Ulcer, J. M. Soc. New Jersey *43*:84 (March) 1946.

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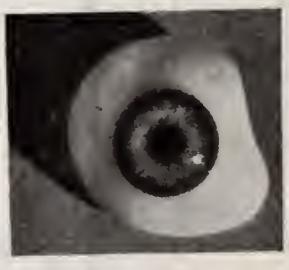
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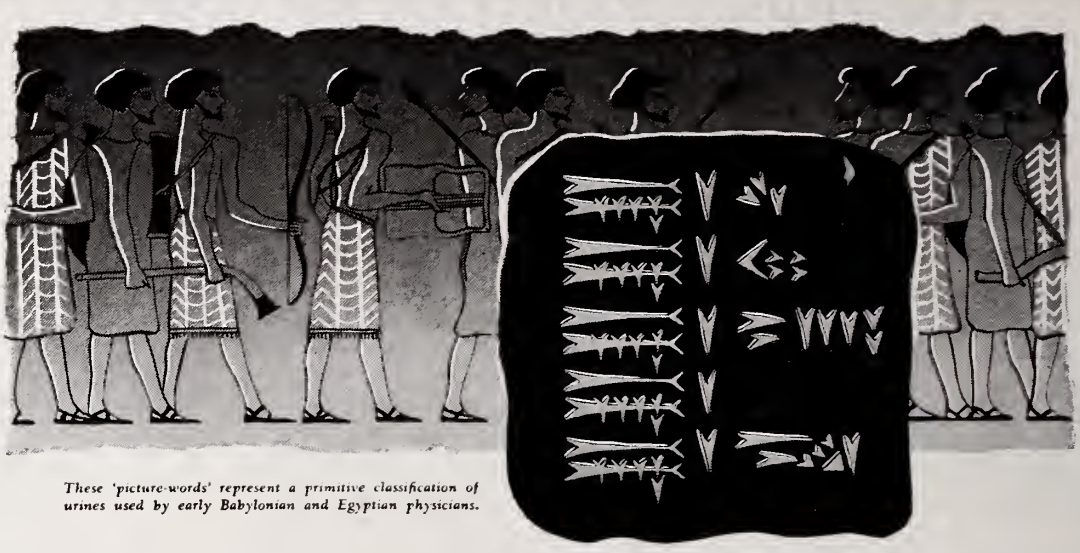
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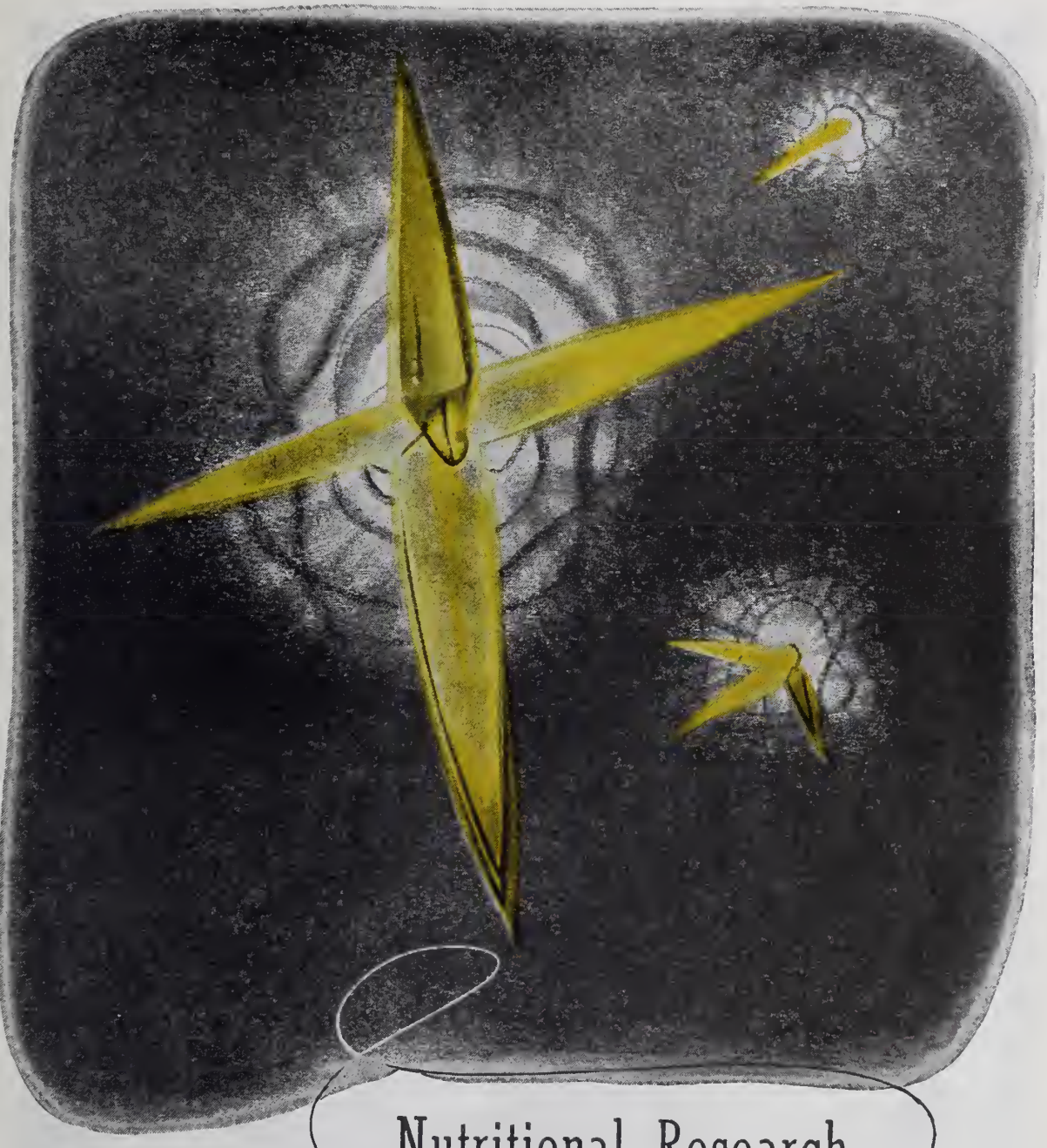
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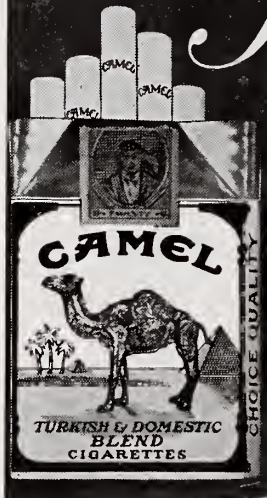
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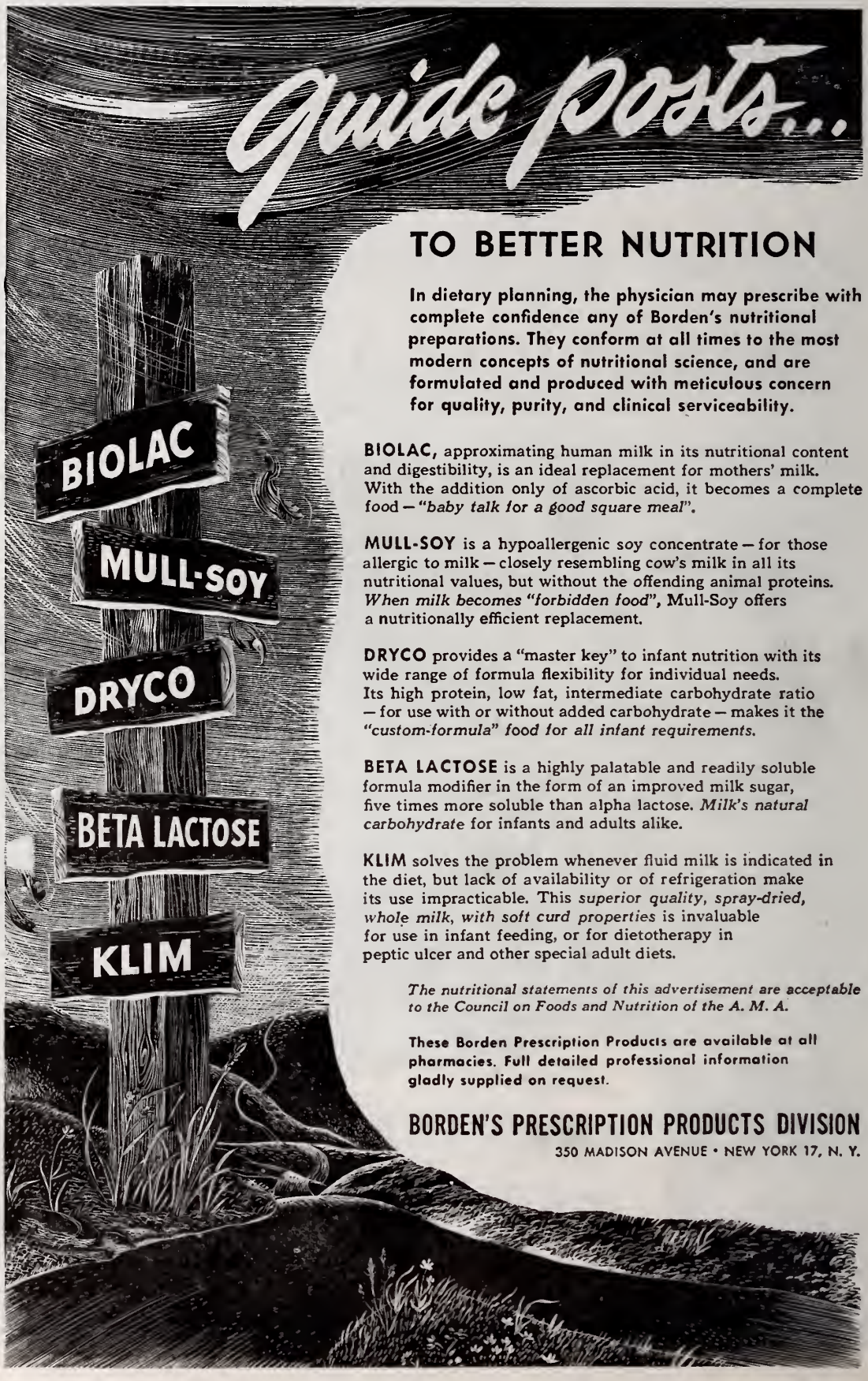
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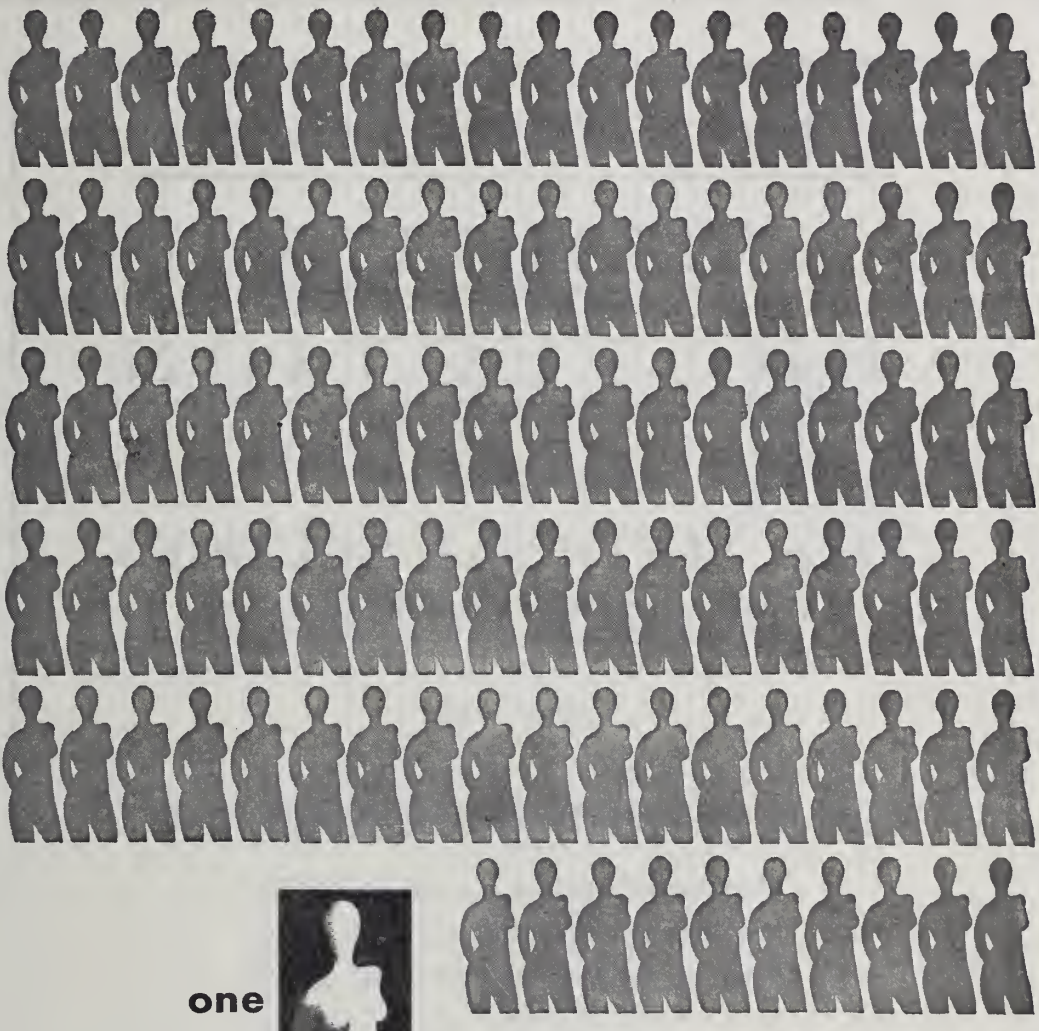
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These Borden Prescription Products are available at all pharmacies. Full detailed professional information gladly supplied on request.

BORDEN'S PRESCRIPTION PRODUCTS DIVISION

350 MADISON AVENUE • NEW YORK 17, N. Y.



one preparation ... for one



or one hundred patients

It is possible to limit your choice of estrogenic substances to one preparation—AMNIOTIN—*and still meet the greatly varying needs of all your menopausal patients.*

AMNIOTIN *is the ONLY complex* of naturally occurring mixed estrogens *for use by three routes:* intramuscular, oral, and intravaginal. Its great range of potency and flexibility of administration enables you to individualize the therapy for each and every patient with a single preparation.

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AMNIOTIN®

SQUIBB complex of naturally occurring estrogens

Ampuls and Vials
Capsules *(oral)*
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Smoother *recovery after appendectomy*

You can help your patients to smoother, comfortable recovery after appendectomies with Prostigmin. By helping restore normal peristalsis and bladder tone, the drug usually prevents intestinal distention and urinary retention. Best results are generally obtained by using Prostigmin both before and after abdominal surgery. Complete information on this and other uses of Prostigmin, based on extensive literature, will be sent upon request.

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Prostigmin®

'Roche'

brand of neostigmine

One Day's Food For A WALKER-GORDON COW



CORN SILAGE — 24 lbs.



DEHYDRATED ALFALFA HAY — 8.5



ALFALFA SILAGE — 13 lbs.



GRAIN MIXTURE — 13 lbs.
14 (ingredients)

1. Molasses	1.9 lbs.
2. Mineral	0.1 lb.
3. Salt	0.2 lbs.
4. Soybean Meal	0.5 lbs.
5. Gluten Feed	0.5 lbs.
6. Linseed Meal	0.1 lb.
7. Distillers Grain	0.5 lb.
8. Brewers Grain	0.5 lb.
9. Bran	1.5 lbs.
10. Oats	2. lbs.
11. Corn	1.5 lbs.
12. Babassu Meal	1. lb.
13. Malt Sprout	1.5 lbs.
14. Barley	1.5 lbs.



WATER — 85 quarts

THIS SCIENTIFIC daily ration was developed after years of study by the Walker-Gordon Laboratories.

It is remarkably rich in vitamins and health-giving minerals . . . And that's one big reason why Walker-Gordon cows produce a milk far superior to the type you get from cows that are fed in the ordinary, unscientific way.

Take Vitamin A, for example. The alfalfa fed a Walker-Gordon cow is not ordinary alfalfa, but a special dehydrated kind containing more Vitamin A. As a result, her milk contains more Vitamin A than many ordinary milks.

And though the quantity of some other vitamins varies in ordinary milk (according to the season and what the cows find to eat), the vitamin content remains uniformly high in Walker-Gordon Certified . . . the year 'round.

Then, too, Walker-Gordon Certified is delivered fresher than ordinary milk. This, plus the cows' wonderfully balanced diet, makes its Vitamin C content higher . . . and gives it a much finer, richer taste.

So it's easy to see why more and more physicians recommend Walker-Gordon Certified to their patients. They believe it's well worth a few pennies extra to get this marvelously pure milk with all its added nutritional values.

WALKER-GORDON CERTIFIED

THE WORLD'S FINEST MILK

For free illustrated booklet, write to Walker-Gordon, Plainsboro, N. J.



even after 40,

a woman does creative work...

The urge to do creative or constructive work is often rekindled in the woman relieved of menopausal symptoms. Restraints placed on her talents by the nervousness, hot flushes and other manifestations of the climacteric may vanish entirely following the use of **"Premarin."**

In addition, there is a "plus" in **"Premarin"** *therapy...the gratifying "sense of well-being" so frequently reported by the patient. Oral activity, comparative freedom from side-effects and flexibility of dosage are other advantages associated with this naturally-occurring, conjugated estrogen.* **"Premarin"** *is supplied in tablets of four different potencies and in liquid form.*

Ayerst

While sodium estrone sulfate is the principal estrogen in **"Premorin,"** *other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water-soluble conjugates.*

"PREMARIN"®

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

ESTROGENIC SUBSTANCES (WATER-SOLUBLE)
also known as CONJUGATED ESTROGENS (equine)

Ayerst, McKenna & Harrison Limited 22 East 40th Street, New York 16, New York

4904

Findings from the Saratoga Spa records*



INHALATIONS

The results obtained in the treatment of 738 patients with inhalation at the New York State-owned Saratoga Spa show interesting tendencies.

Marked relief of the condition treated was noted in 38 patients (5.2%); moderate relief in 468 patients (63.4%); temporary relief in 46 (6.4%); and no change in 185 (25%).

Conditions for which the treatments were given included sinusitis, coryza, bronchitis, chronic rhinitis, bronchial asthma, laryngitis, allergic rhinitis, hay fever, and pharyngitis. The treatments consisted of the inhalation of finely nebulized saline-alkaline, naturally carbonated mineral waters, and medicated oils.

The relief obtained bore a definite relation to the number of treatments taken. In acute conditions, from four to six treatments were necessary to obtain consistent improvement while in chronic conditions, twelve to fifteen treatments were usually required.

Inhalations are taken without discomfort, which is an important factor in therapy.

The safety of the therapy can be stressed. Reactions of significance occurred in only three patients. One patient may possibly have had a sensitivity to chlorenan, one developed an acute asthmatic paroxysm, and the third noted a general reaction to epinephrine.

Attention to the general condition of the patients suffering from respiratory disorders is an important factor. Inhalations have a definite place in the general "cure" regimen of a spa.

* *As printed in the New York State Journal of Medicine, 44:1214 (June 1) 1944.*

The SARATOGA SPA

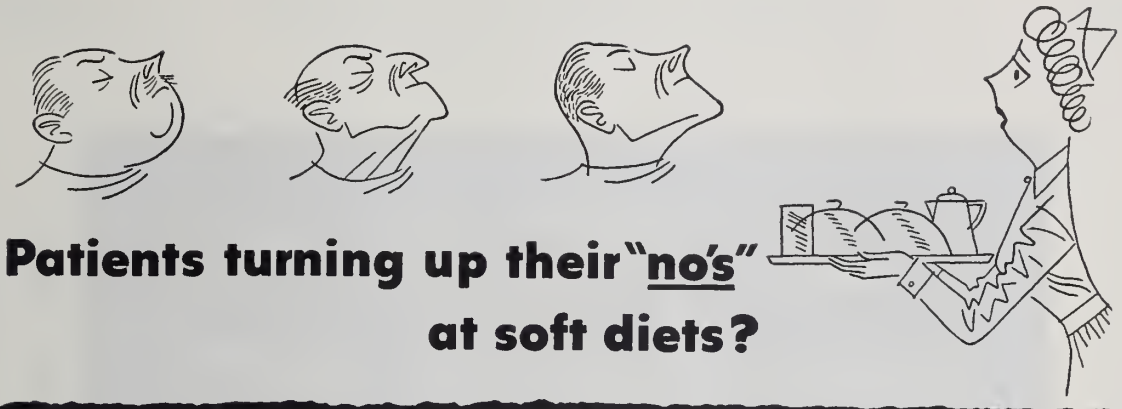
"Physician, Give Heed to Thine Own Health"

Many physicians have come to the Spa for the same kind of treatments that have helped their patients here. After a restorative "cure" at the Spa, you, too, will return to your practice refreshed—revitalized—ready for the busy days that lie ahead.

For professional publications of the Spa, and physician's sample carton of bottled waters with their analyses, write W. S. McClellan, M.D., Medical Director, Saratoga Spa, *159* Saratoga Springs, New York.

Listed by the Committee on American Health Resorts of the American Medical Association

THE EMPIRE STATE'S CONTRIBUTION TO THE MEDICAL PROFESSION



Patients turning up their "no's" at soft diets?



Try tasty, protein-rich Swift's Strained Meats!

A palatable, natural source of complete, high-quality proteins

It's not surprising that soft-diet patients develop appetite-apathy. The things they have to eat!

To help overcome this anorexia many doctors now recommend Swift's Strained Meats. Delicious, *real* meat that patients on soft, smooth diets can eat and *enjoy*. Swift's Strained Meats provide an excellent base for high-protein, low-residue diet. Rich in iron, they're chemically and physically non-irritating. They make available *simultaneously all* essential amino acids for optimum protein synthesis.

Swift's Strained Meats are tasty enough to tempt tired appetites. They supply goodly amounts of B vitamin to help stimulate patients' natural appetite for other foods. Swift's Strained Meats are 100% meat—a variety of six kinds: beef, lamb, pork, veal, liver, heart. Originally prepared for infant feeding, they're exceptionally fine in texture—may easily be used in tube feeding. Convenient—ready to heat and serve.



6 varieties:
Beef, lamb, pork, veal, liver, heart



For patients who can take foods of less fine consistency—Swift's Diced Meats offer tender morsels of nutritious meats with tempting flavors patients appreciate.

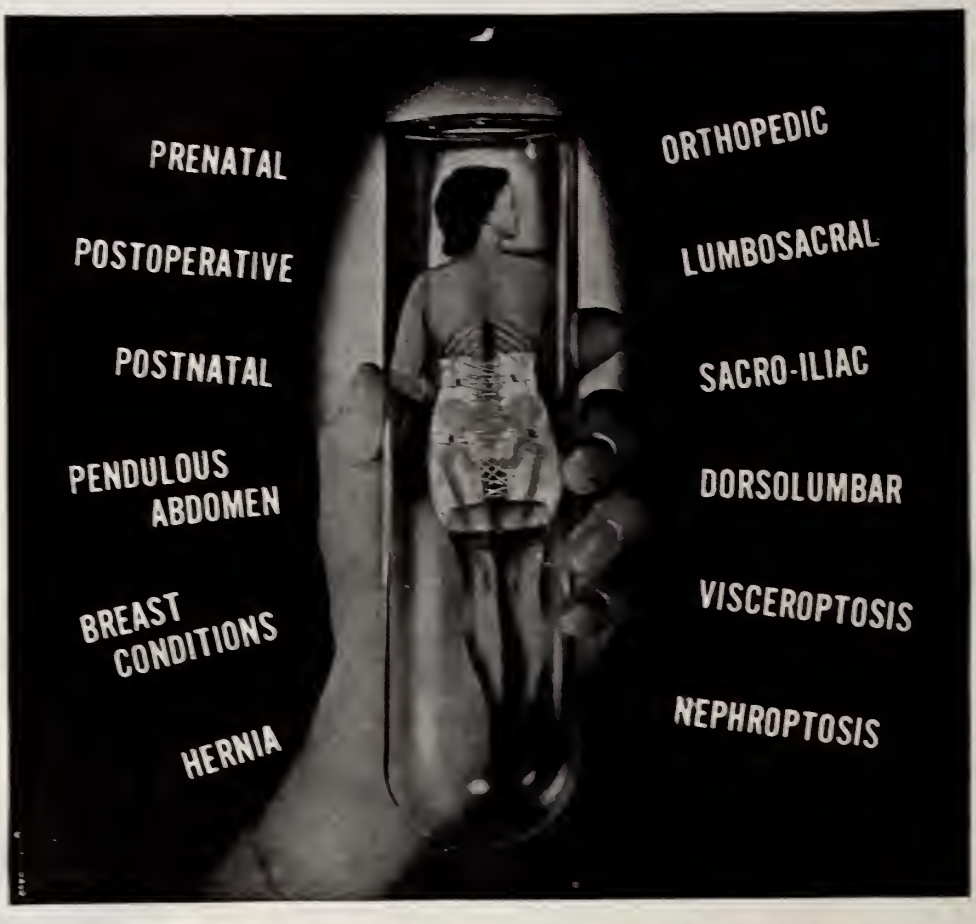
The makers of Swift's Strained Meats invite you to send for your copy of "The Importance of Protein Foods in Health and Disease"—a physicians' handbook of protein feeding, written by a doctor. Send to:

SWIFT & COMPANY

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A Shoe and Last For Every Foot

The Robert H. Wuensch Company of East Orange has opened a complete WILBUR COON Department for the profession. Sizes and last not ordinarily stocked in the average shoe store are available at Wuensch's. Prescriptions are filled and orthopedic corrections made in our own shops.

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Mr. Smith and Mr. Williams are the two Wilbur Coon Shoe Specialists in charge. Both men have had over 25 years in fitting shoes for problem feet. You can entrust your difficult cases in their hands. Satisfaction is always guaranteed to both patient and physician.

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double protection





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DIAPERS WHICH ARE ACTUALLY ANTISEPTIC, AND GERMICIDAL! Every diaper is treated with a new-type organic compound—which actually gives the cloth itself both antiseptic and germicidal properties. The result is a diaper which may stay germ-free for 5, 8, 10 (in some cases up to 29) days! A diaper which not only has the power to inhibit, but to destroy, germs! (Tests made in accordance with specifications set down by the U. S. Government.)

Play safe—by asking your patients to subscribe to the diaper service which bears this seal!

It's your guarantee that you are prescribing diapers which are snow-white, soft, fluffy and 100% "hospital clean".

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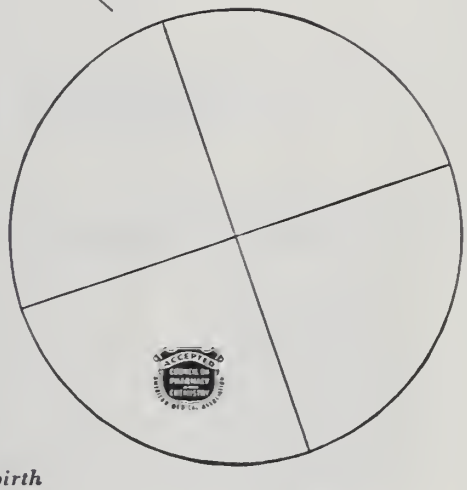
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When the cause of the underlying emotional disturbance is apparent—and when it has been properly ventilated—'Benzedrine' Sulfate has proved its effectiveness in the treatment of mild but persistent psychogenic depressions, such as may be found:

Attending ***old age***
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Precipitated by ***the menopause***
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Benzedrine* Sulfate tablets • elixir

(racemic amphetamine sulfate, S.K.F.)

one of the fundamental drugs in medicine



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When you refer your patient to your colleague, the Eye Physician, for an eye examination—your patient is in the hands of one qualified to treat and prescribe and one not interested in the sale of eyeglasses—and you too will receive a report of your patient's condition.

The SAFE WAY is the best way—remember. Your colleague the Eye Physician for the examination and the Guild Optician to make the glasses, if any are necessary.

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A dietary supplement containing Dicalcium Phosphate with Vitamins A, D and C.

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An effective absorbent powder for use in Fungus infections of the hands and feet as a prophylactic powder useful in relieving minor skin irritations.

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A palatable, non-narcotic, preparation for coughs and throat irritations due to colds. Contains the anti-spasmodic Sodium Benzyl Succinate, combined with expectorant drugs.

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Magnesium Trisilicate 7½ grs., Phenobarbital ⅛ gr. and Attrophine 1/300 gr. For use in hyperacidity, gastralgia and enteralgia.

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An effective Fungicide and Germicide for finger and toe nails. Used in conjunction with Dermal Powder in the treatment of Athlete's Foot.

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A vascoconstrictor, 2-Aminoheptane Sulfate 1%, indicated in the treatment of allergic and infectious rhinitis.

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A high potency, nine vitamin capsule indicated in vitamin deficiencies, restricted diets and geriatrics.

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Pink, Mint flavored tablets, containing 2½ grains each of SULFADIAZINE, SULFAMERAZINE and SULFATHIAZOLE, buffered with Sodium Bicarbonate.

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A high potency, pleasant tasting, liquid Vitamin B complex, with liver, in a wine base. Indicated in vitamin B deficiencies.

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Babies who enjoy the benefit of your professional supervision have added assurance of sound growth and extra protection from infant ills. Proper nutrition, of course, plays a basic role in baby's healthy development; and in this field the use of Nestlé's Evaporated Milk provides the full value of whole cow's milk, plus something extra—pure Vitamin D_3.



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No wonder so many doctors recommend NESTLÉ'S Milk by name

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WHEN HE'S TEMPTED BY FORBIDDEN FOODS . . .



What's a man to do? He's tired of dieting. The vision of new health and a better figure faded with the first 10 pounds . . . and now all he can see wherever he goes is food, food, tempting food . . .

● One 2.5 mg. tablet of DESOXYN Hydrochloride, an hour before breakfast and lunch, can provide meal-to-meal aid in curbing the appetite. It also imparts a desire for greater activity and decreases the feeling of fatigue. A third tablet may be taken in midafternoon if necessary, and if it does not cause insomnia. ● Weight for weight, DESOXYN is more potent than other sympathomimetic amines, so that *smaller doses* may be used. Many investigators who have used DESOXYN extensively claim that its action is *faster* and *more prolonged* with relatively *few side-effects*. With the correct dosage, little or no pressor effect has been observed.

● As an adjunct to the treatment of obesity, as relief for the depression of convalescence, as a safe, effective stimulant for the central nervous system, remember DESOXYN Hydrochloride.

For the complete story on indications and dosages, write to ABBOTT LABORATORIES, North Chicago, Illinois.

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HYDROCHLORIDE

(Methamphetamine Hydrochloride, Abbott)

TABLETS, 2.5 and 5 mg. ELIXIR, 20 mg. per fluidounce. AMPOULES, 20 mg. per cc.

surrounded by every scientific safeguard



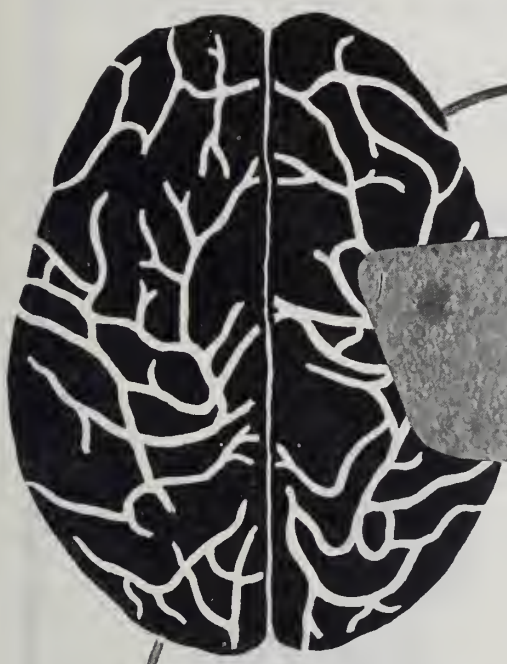
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Every lot of every **APC** preparation comes under the vigilance of laboratory technicians through every step of manufacture • Skillful hands and knowing minds check, recheck, and check again to insure end-products of...

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- **economical, too...always**

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Ephedrine Hydrochloride Solution **APC** 3%, 30 cc.
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Ephedrine Sulfate Solution **APC** 3%, 30 cc.
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Not only in neurosurgery—where hemostatic *certainty* and minimal scarring are so critical—but in many other less dramatic but very common surgical applications, Gelfoam, an absorbable gelatin sponge, provides remarkable control of bleeding. Its prompt clotting action effectively arrests trickling from small veins, surface oozing, capillary bleeding and hemorrhage following resection. Cut or molded to the desired shape and applied with or without thrombin, Gelfoam is safely left *in situ* to be absorbed with little or no fear of tissue reaction.

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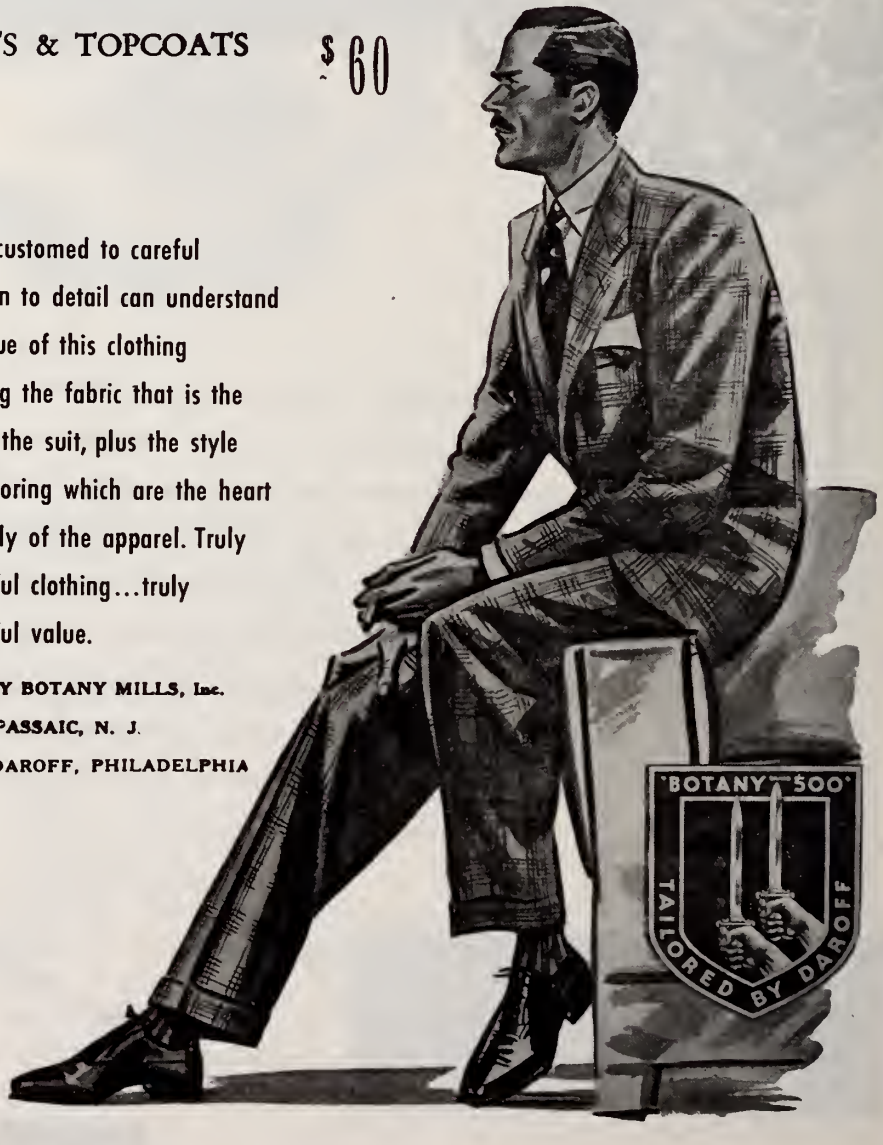
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SUITS & TOPCOATS $60

Men accustomed to careful attention to detail can understand the value of this clothing featuring the fabric that is the soul of the suit, plus the style and tailoring which are the heart and body of the apparel. Truly wonderful clothing...truly wonderful value.

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Old Age NEED NOT MEAN *Chronic Illness*

Clinical studies[1,2,3] demonstrate that the results of inadequate dietaries are insidiously cumulative and may not become evident for many years. Many of the afflictions of old age are now attributed to lifelong faulty dietaries and no longer need be the inevitable accompaniment of advanced years.

In advanced age the wisdom of dietaries high in vitamins, minerals, and protein, low in fat, and moderate in carbohydrate, is pointedly emphasized in reported clinical studies. Liberal amounts of vitamin B complex and of calcium, in particular, are important for increasing the appetite and for supporting the calcium integrity of the skeletal structure.

Ovaltine in milk, a delicious *multiple* dietary supplement, is highly useful in the management of aged patients. Its multiple vitamins, its important minerals, and its biologically complete protein are the very nutrients required for effecting full adequacy of even seriously faulty diets. The refreshing tastefulness and easy digestibility are welcomed by the aged.

The rich dietary contribution made by three daily glassfuls of Ovaltine in milk, is outlined in detail in the table.

[1] Boss, E.P.: The Physiologic and Clinical Phenomena of Aging, New Orleans M. & S. J. 97:64 (Aug.) 1944.

[2] Spies, T.D., and Collins, H.S.: Observation on Aging in Nutritionally Deficient Persons, J. Getontol. *1*:33 (Jan.) 1946.

[3] Stieglitz, E.J.: Therapy of the Aged, M. Ann. District of Columbia *17*:197 (Apr.) 1948.

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BIBLIOGRAPHY: 1. Simon S.: J.A.M.A. **138**:127, 1948. 2. Pearman, R. O.: New England J. Med. **228**:507, 1943. 3. Kearns, W. M., Hefke, H., and Morton, S. A.: J. Urol. **56**:392, 1946

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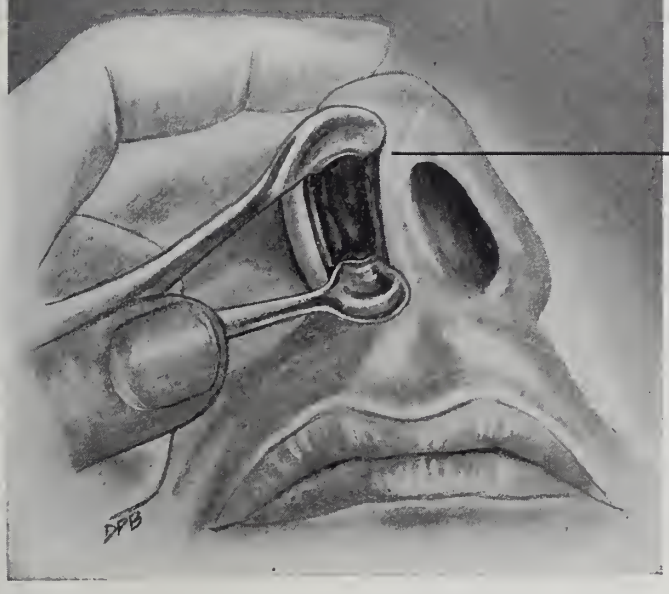


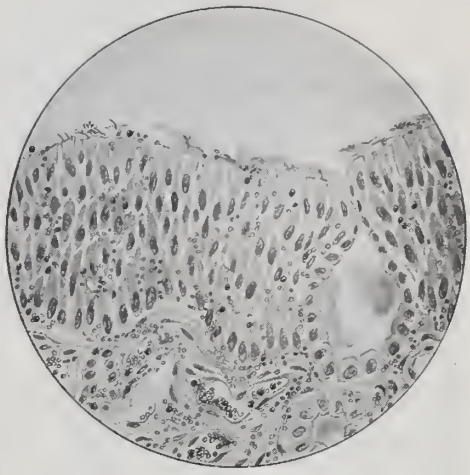
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*Snyder, M. L., Kiehn, C. L. and Christopherson, J. W.: Mil. Surgeon, *97*: 380, 1945. • Shipley, E. R. and Dodd, M. C.: Surg., Gynec. & Obst., *84*: 366, 1947 • Mays, J. L.: J. Med. Assoc. Georgia, *36*: 263, 1947. • Curtis, L.: Surg. Clin. N. America, 1466 (Dec.) 1947.

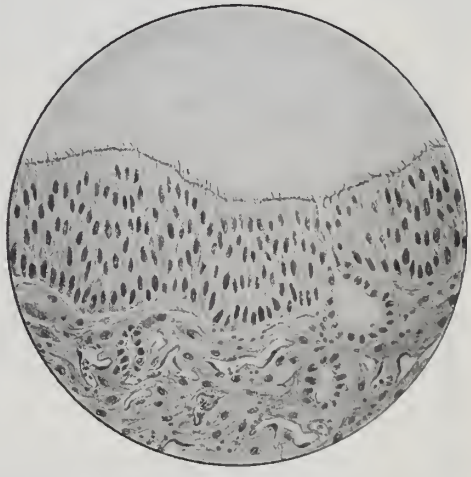
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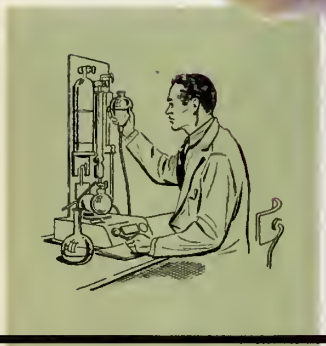
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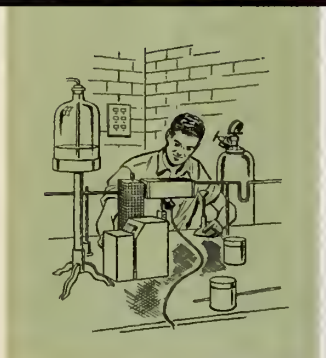
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MEDICAL SCHOOL: CLOISTER OR CLINIC?

The appointment of a committee to study the possibility of a medical school in New Jersey raises, even at this premature date, a natural question as to the kind of school it is going to be. The question is not whether it will be a good school or a bad one. There was never any problem here. States with ten per cent of our population and five per cent of our wealth are supporting grade A schools. Attention rather is directed to the growing practice of using full-time teachers, well-trained academicians who are immersed in the science of medicine but who are aloof from its practice. More and more medical schools are appointing more and more full-time pedagogues. Often (and with increasing frequency) these professors have their offices in the school or hospital, see occasional private consultations there, but on the whole remain isolated from the main stream of daily practice. Here is what a distinguished British educator says about it—and he says it better than we could. (This is abstracted from an article by F. M. Walshe in last December's *Lancet.)*

"The presence in the modern medical school of two categories of teacher, the practicing consultant and the salaried academic teacher, opens the door to a disastrous dichotomy. The practicing teacher is familiar in his everyday work with individuals seen against the backgrounds of home, family, and work. The full tide of human needs and distresses bears down upon him daily, and the arts and technics of medicine are his constant and exhausting preoccupation. He may cease to look beyond them.

"For the cloistered academic teacher, life is different. He gets his patients washed and tidied and laid out in rows in hospital wards; their importunate wives and mothers-in-law do not intrude upon his profound cogitations. No unpleasant smells or noises break in on his ordered eloquence; house physicians and nurses wait on his bidding and tremble at his voice, and all those seeming irrel-

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evancies, so necessary to the balanced comprehension of the patient's total situation, are carefully tidied away out of his sight. He does not miss them, for he has never known them. He is like the florist who can arrange the plucked blooms, from which the dead leaves and the dirty roots have been removed and the earwigs shaken off, into all the combinations of form and colour his fancy dictates."

While our contemplated medical school is still in the pre-blueprint stage, it is hoped that its planners will bear this in mind. For the preclinical subjects, like anatomy and biochemistry, academic teachers are desirable. But let the clinical specialties be taught by doctors who know from daily experience the concrete, numerous, and challenging problems of the everyday practice of medicine.

THE HOSPITAL AND THE GENERAL PRACTITIONER

"You must become a specialist between now and July 1 or give up your position on our staff." These instructions were given last month by the Board of a hospital in a neighboring state to all its general practitioners. They had been "warned" a year ago that this rule would go into effect in the summer of 1949. Eighteen months seems like a short time for the manufacture of a specialist.

Thus comes into reality a policy which has been increasingly talked about during recent years but, so far as we know, never actually put into operation in any New Jersey hospital. The motive is noble enough: to assure every patient in the hospital the personal attention of a well trained specialist. In practice the policy leads to numerous difficulties. For example the Board of one New Jersey hospital has had on its agenda for the past two years a resolution to require all chiefs and associate chiefs to be certified specialists. It is not proposed to unseat any presently undiplomated chief but it is anticipated that no doctor would henceforth attain such rank without the imprimatur of one of the specialty examining boards. This would mean that an assistant or adjunct in a specialty service would have to close his office and take two or three years out of his practice in order to sweat out the residency which is a requirement for admission to most board examinations. Presumably his wife could find some gainful employment during this period to keep the home fires burning. Since few well established practitioners can afford this, the only alternative would be their abandonment of all hope of staff promotion. Some hospitals have even considered going to the extreme of requiring that all doctors on specialty services be board diplomates. Since a physician cannot qualify for a board examination without hospital and clinic experience, what would happen if you could not get hospital and clinic experience without having a board diploma?

The hospital in our neighboring state will require that everyone in the hospital must limit his private practice to a specialty. The private practitioner will descend to the role of a feeding station for a hospital. When that happens no awards, gold medals, scrolls of appreciation or pats on the back will help his morale. The human body can be completely parcelled out among the specialties so that there will be nothing left for the general practitioner except night calls.

The dangers inherent in any such development are so obvious as to need no re-emphasis here. Let it be hoped that the fast growing Academy of General Practice will be able to keep the hospital doors open to the family doctor and restore to the general practitioner something of the standing, dignity and importance which he has enjoyed through the centuries.

ORIGINAL ARTICLES

THE PHYSICIAN AS A CITIZEN

JOSEPH H. HOWARD, M.D.,* Bridgeport, Conn.

An editorial in the JOURNAL of The Medical Society of New Jersey, October 1943, speaking of Dr. Elias J. Marsh, states: ". . . . an outstanding physician, foremost in his chosen field of ophthalmology, a dutiful member of organized medicine in hospital, county and state; an exemplary citizen, and a loyal and devoted friend of many, he despised sham, pretenses and glamour; he believed passionately in human rights and in human values and was ever ready to defend them, ... he firmly believed in the Constitution, the Declaration of Independence and the Bill of Rights. He was a great believer in free enterprise and the rewards of labor; genuinely opposed to regimentation and the usurpation of the rights of people, believing passionately in their rights. He loved liberty and was always loyal and unfailing to the things he believed in."

Few physicians can boast of the heritage of Dr. Marsh, his father having been president of The Medical Society of New Jersey in 1891, and his grandfather in 1850. Two of his maternal grandfathers were also presidents of this, the oldest state medical society in the United States.

One of the outstanding contributions of Dr. Marsh was *An Outline History of The Medical Society of New Jersey to 1903,* published as part of the 1942 proceedings of the New Jersey Historical Society. In this document he describes a meeting of . . . .

"A large body of the most respectable practitioners of the province who met in response to an advertisement in the public press in New Brunswick on July 23, 1766, to form The New Jersey Medical Society . . . ." Other groups had been organized previously but were short-lived and many were merely clubs without official standing. The newly formed New Jersey Society invited ". . . . every gentleman of the profession in the province to join for their mutual improvement, the advancement of the profession, and the public good . . . ."

This contribution to American medicine by the founders of this Society has done much to develop the standards which have made American medicine the finest in the world. Their establishment of a fee schedule, which although not exact, nor could it be so, at least eliminated abuses prevalent in the early days, and demonstrated the interest of the profession in the public welfare by New Jersey physicians. Their attempt to standardize requirements for the practitioner elevated the trained professional man above the quack and irregular practitioner whom the public had cause to disregard and accept only as a last resort.

In 1846 the Medical Society of New York invited the other medical societies to send representatives to New York City for consideration of a unification of these organizations, the object being to establish a national society. The Medical Society of New Jersey accepted the invitation. Dr. Lyndon A. Smith of Newark, and Dr. E. J. Marsh of Paterson attended and were invited to sit with the convention. As a result of this meeting, forty regular state or county medical societies and twenty-eight medical schools met in Philadelphia in May, 1847, and formed the American Medical Association.

The interest of Dr. Marsh and his ancestors in the welfare of the people and the contributions which he made, together with the progressive spirit of your society, has prompted me to select as my subject, "The Physician As a Citizen".

Through the ages we have witnessed contributions that physicians have made in many fields of endeavor. Six physicians signed the Declaration of Independence; three physicians signed the Constitution of the United States; twenty-one members of the First Provincial Congress of Massachusetts were physicians.

* Elias J. Marsh Oration delivered before the Sixth Fall Clinical Conference of The Medical Society of New Jersey, December 8, 1948.

Many members of our profession have contributed to civic life. Edward Tiffin was Governor of Ohio; John Winthrop of Connecticut; Joshua Clayton of Delaware; Charles Robinson, first Governor of Kansas; William Wyatt Bibb of Alabama; Dr. Noah Martin and more recently, Dr. Robert Blood of New Hampshire. Dr. Hubert Work, a Past-President of the American Medical Association, was Secretary of the Interior. Dr. Ray Lyman Wilbur, another President of our national association, was a member of the cabinet. General Leonard Wood, a physician rose to Chief of Staff of the Army. He was described by the great English surgeon, Lord Moynihan, as the greatest colonial administrator America has yet produced. Clemenceau, a physician, was a great French statesman. The first president of the Chinese Republic was Sun Yat Sen, a physician. William Henry Harrison, who became President of the United States, studied medicine although he was not a physician.

Many others attained great prominence in various fields; Royal Copeland in politics; David Livingston in exploration; John Locke in philosophy; Petrus Hispanus, who was Pope John XI, in religion; Christopher Wren in architecture; Fritz Kreisler in music; Galileo in mathematics and physics; Oliver Goldsmith, Noah Webster, John Keats, Francis Scott Key, Oliver Wendell Holmes, Sir Conan Doyle, Warwick Deeping, Somerset Maughan, and A. J. Cronin, in literature; Robert Perry, the discoverer of the North Pole; Dr. Richard Gatling, among his many inventions, gave us the modern repeating rifle; the inventor of the telephone, Alexander Graham Bell; Timothy Bright invented modern shorthand, and Henry Faulds, the modern fingerprint method of identification.

Dr. Daniel Coxe established a pottery in Burlington, New Jersey in 1680, the first in the United States. Dr. William Thornton designed the Capitol Building in Washington, D. C. A popular poem, "In Flanders Fields" was written by a physician, John McCrea, following World War I. John Chalmers DeCosta, one of the outstanding members of our profession, was well-recognized for his contribution to poetry.

So often we hear that the modern physician, due to greater demands for his professional services and the time required to keep abreast of rapid advancement in medical research is prevented from becoming informed in fields outside of his profession. The busiest physician is the man who contributes most to the community. Aside from our profession, we are laymen and unless we have knowledge of community affairs, we cannot speak with authority any more than any other citizen. Criticism was heaped upon our profession during the nineteenth century because of inferior medical schools. Practitioners of questionable character with meager knowledge brought doubt into the minds of the public. However, even more so in those days the able, conscientious, and kindly physician was highly respected and regarded to the extent of being a consultant in all phases of community life and was active in church affairs. He was also a director of the local bank; was called upon for advice in real estate transactions, wills, marriage difficulties, and a host of other problems that brought him close to community life. It is to the credit of The Medical Society of New Jersey that they were first in insisting upon an improvement in standards of medical education.

Early in the history of your society, interest in the welfare of the public was demonstrated when, under the leadership of Dr. Ezra M. Hunt of Metuchen, an effort was made to induce the legislature to activate a program for the improvement of public hygiene and sanitary legislation; and after an eleven year period of agitation there evolved the New Jersey Sanitary Association in 1874. In his modesty, Dr. Marsh failed to mention the part played by his ancestors in this pioneering project.

Today, similar problems exist in many states. Leadership for elimination of these threats to the health of the citizens rests in the hands of politicians with little encouragement from our profession. Health and welfare are our problems and should interest the profession to the extent of our insisting upon the appropriation of sufficient funds to eliminate these hazards which must be carried out on a local level.

A contribution of the citizens in health affairs on a local level involves the cooperative effort of all groups interested in the welfare of the people. This may best be implemented by the establishment of local health councils. The indifference of physicians to participate in these councils compels lay members to carry on a program without the advice of medical men, and with questionable success. Permit me to quote from the book *Decentralize for Liberty* by Thomas Hewes of Connecticut, ". . . . We believe that our government as far as possible must be returned to the neighborhoods, the towns and the states of the nation so that each citizen in each family may share in and understand the responsibilities and advantages of active democracy. . . ."

Interest in legislative affairs is the duty of every citizen. In these trying times when a distinct threat to our form of government exists, it behooves the voters to inquire into controversial legislation lest laws be passed which hamper the progress of this, the greatest nation in the world. Our interest, therefore, should not be confined to national matters but be equally earnest in state and local measures involving the health and welfare of our neighbors.

A friendly spirit of cooperation between the State Medical Society, the physician, and those in control of the affairs of our state government results in a greater degree of respect for the members of our profession, and consultation by the Executive Department of the state is frequently requested when important assignments are made on commissions or other agencies dealing with the welfare of the population. Should members of our great profession be lax in their activities regarding legislation, be assured you will be directed by a group of laymen, and in some cases by shrewd, selfish politicians. Within the past few years hundreds of bills have been introduced into Congress which do not fit into our way of life. The ever-increasing tendency to lull the American public into a sense of false security by offering more and more from the federal government is destroying initiative and slowly, but surely, leading to a dictatorial type of government. This technic is not new. It has been repeated over and over again since the beginning of civilization. This same principle, now so ardently advocated by social planners in our country, was the cause of the downfall of the Roman Empire under Augustus Caesar; and Diocletian was no more successful. Greece under Pericles did not succeed in its program of increased government spending. The disastrous consequences which must inevitably come can be halted only by an alert citizenry voicing their opposition to their Representatives.

Many bills have been introduced pertaining to school health programs. As citizens we must ever be on the alert to these subtle suggestions, a method used by the dictators of Europe to make every child a ward of the state and to destroy the basis of good society, the family. School health programs are essential but must be carried out under local control. Legislation is a means of protecting the individual, but as we view much of present day policy, it tends more and more to the regulation of our citizens.

The power of the press has long been recognized, and more recently the influence of radio has molded opinion on many vital issues. The medical profession has been lax in not utilizing these media to its greatest advantage. True, it is costly. To be used as a propaganda agent for the promotion of the profession is not desirable. However, frequently physicians are called upon in their local communities to appear on radio programs for discussion of issues vital to the welfare of the citizens, and all too often appeals for such cooperation are rejected. As a good citizen the physician must be willing to participate in a community forum, radio broadcasts, luncheon club meetings, parent-teacher groups and other bodies interested in obtaining the viewpoint of the profession in community problems.

The Chamber of Commerce and the Community Chest seldom have the wise counsel of the medical profession. Too frequently we think back to the days when we were concerned only with the sick. However, recently a writer has stated that medicine now has four dimensions in place of the one. To the original aim of administering to the sick are added social, political and economic functions.

Within the memory of many of us, labor has struggled for its very existence. Unfair advantage taken of the laboring classes resulted in a revolt against low wages, poor working conditions, and a lack of opportunity for the workingman to improve his lot. Interested as we are in the laboring class, we must be on the alert that these people, our patients, are not being drawn into a web that will be their undoing. Satisfied with high wages, time for leisure and good working conditions, they are willing to neglect other problems just as important. Propaganda is presented to them in the form of leaflets, and emotional speakers, to impress them with the advantages of other philosophies. Some union meetings so often discourage these sincere men that they stay at home rather than participate in endless hours of debate stimulated by left wing radicals for the express purpose of keeping members away so that votes may be passed to the advantage of the radicals. The indoctrination by a relatively small group has convinced the laboring man that, by a small deduction from his wages, he and his entire family may procure the finest medical and hospital care, together with complete security, without extra cost. No one can better explain this erroneous idea than the well-informed family physician. No one can better convince this working man that should this fantastic scheme eventually come, it is the beginning of an ideology which will eventually absorb his union into a controlled economy in which he shall have no say, and direction of his activities will come from a central authority in the federal government.

Socialism and communism, by placing the conduct of industry in the hands of the state, destroy the natural laws of labor and restrict freedom to the point of slavery. Not recognizing the natural rights of the individual, it makes him subservient to the state, which retards production, stifles initiative, and substitutes a compulsory economy for voluntary cooperation. The Pied Pipers are herding the working man down a fantastic road that leads only to destruction, and on their way, by subtle means, are discrediting the medical profession.

As physicians, we serve the working man well with care not available to workers anywhere else in the world; as citizens, we must be willing to share many of his problems, give wise counsel, and be so informed on important labor legislation as to be able to discuss intelligently the advantages and disadvantages of the more important laws which appear to benefit the worker, but which, in the end, result in less freedom, higher taxes, both apparent and hidden, higher cost of living, and questionable security.

Every citizen should be interested in taxation. The ever-increasing drains upon the resources of individuals, local communities, and states, by the federal government is slowly depleting all capital which could have been used for individual security or local improvements. The national debt has reached an all time high—two hundred and seventy-nine billions of dollars, equivalent to $6,303 for each family. The larger the national debt, the more difficult it is to reduce taxes; and while taxes climb, the greater is the retardation of our private economy and the more regulative interference by the government in the lives of the individual.

The indifference of many citizens to the step-by-step absorption by the federal government of functions primarily the duties of local communities is a threat to our republic and requires the serious consideration of every individual and group of individuals. As Thomas Jefferson once said, ". . . . I am not a friend of a very energetic government. It is always oppressive. . . ."

Reduction in the debt since 1946 of twenty-seven billion dollars is encouraging, but further action toward stable economy must be continued, and it is possible only by a public opinion expressed to our elected representatives. A government will be more cautious in unwise and excessive spending when a fair percentage of the voters are taxpayers and owners of government bonds.

Recently the Pope, speaking before a group interested in international and local finance said, ". . . . we should be warned against a system of taxation that relegates to last place the people's legitimate ambition to enjoy the fruits of their labor and their anxiety for the security of their family. . . ."

The late John Maynard Keynes wisely

states, ". . . . by a continuing process of infiltration, governments can confiscate secretly and unobserved an important part of the wealth of their citizens. . . ."

Interest in the housing shortage has brought pressure for federal action aimed at subsidizing and sponsoring a costly and less efficient program than that at present functioning at the local level. As physicians and citizens, we are well aware of the shortage and anxiously await the time when all of our citizens are well-housed; but we must recognize the fact that when these crises arise, we should not shirk our local responsibility and become convinced that only a paternalistic goverment is capable of solving the problem.

The future of our great republic rests in the hands of our youth, and be assured that indifference on the part of parents with regard to textbooks used by these children, and failure to select competent citizens to represent the community in the conduct of our educational systems will result in the indoctrination of youngsters with an ideology foreign to our American heritage. At present, in thousands of school systems throughout our land, textbooks are used which discredit the great founders of our republic, belittle our type of government, and heap praise upon a system of cooperative control of industry, farms, railroads, and communication systems.

In 1934, Dr. William A. Wirt of Gary, Indiana, an educator, tried to expose the system of infiltration into the American schools. His plea was not heard in our nation's Capitol with the result that during these many years, so-called liberals have been taking over our schools and colleges. Despite repeated warnings from many sources, this infiltration continues with changing technics and names. A special commission, appointed by the state of Massachusetts, to investigate the encroachment of foreign ideologies in the schools of that state reports:

". . . . At a convention of the Progressive Education Association in Cleveland, Ohio, March 2, 1934, Dr. Harold Rugg of Teachers College, Columbia University stated that efforts were being made to organize fourteen million persons into a pressure group to force more radical change in the economic system within three months. He said funds were forthcoming but would refuse to reveal the source. He outlined the plan to include a central planning agency to tie together thousands of groups of citizens who believed that the capitalist system should come to an end. . . ."

There are encouraging signs that the Rugg social science textbooks are being discarded in many school systems, but it will take more effort on the part of an alert citizenry to eliminate entirely all teaching material that turns the mind of our youth against his native land. Schools with high-sounding names have sprung up in the larger cities of our country. Named after American heroes or prominent citizens, they trap the uninitiated and spread their doctrine to the youth of these areas. The National Council of American-Soviet Friendship, listed by the Attorney General as a red-front organization, conducts summer courses in a large number of our eastern colleges. The recent statement from Bloomfield College in New Jersey denouncing disloyal professors and questioning the term 'academic freedom' as a license to spread a doctrine un-American in spirit is most heartening. In the early days of the war, the Young Communist League disbanded, but within thirty days there appeared a new youth movement called the American Youth for Democracy. Well-entrenched in a large number of colleges of this country, it carries on propaganda which undoubtedly makes an imprint on the yet immature brain. New Jersey is represented on the National Council of the American Youth for Democracy by four members.

Recently the Rotary Club of Kansas City conducted a poll of college students in which sixty-three per cent believed that government ownership is more efficient than private ownership. Although they could not explain the reason for their answers, they had heard that socialism is more efficient, and sixty-three per cent of them believed it.

A textbook, *Our Southern Neighbors* used in the sixth grade classes in Rutherford, New Jersey, has been ordered banned because of passages derogatory to the United States.

The American system of controlling education is unique in that it is tax-supported locally and free to act through Boards of Education selected from the citizens of that community. Disastrous taxation by the federal

government has drained from the various states resources which allows little to remain for the improvement of educational facilities. The natural tendency in this modern age is to appeal to the government for aid and we expect that "subsidies" will soon be offered by the government to the states to finance partly their educational systems. How little do many realize that the federal government has no funds to finance education, and what is received by the states is their own money which has been sent to Washington and returned in part. Keep in mind a ruling of the United States Supreme Court in 1942, ". . . . The government has the right to regulate that which it subsidizes. . . ."

If the physician as a citizen has but one interest, it should be lending his support to the preservation of our American school system, free from foreign propaganda, and controlled in a true American fashion by the citizens of each community.

Threats to our American system of medical practice are more imminent than in the past several years. We object to the plans proposed by the social planners because we believe our people receive the finest medical care in the world; and we rebel because as citizens we recognize the first step in the long-range program to substitute for American freedom a planned economy which will enslave the American people.

The results of the recent election indicate an early attempt at establishing a socialist system of medical care for the American people. The defeatist attitude of many physicians during the past month is appalling. The experience in other countries may well be an example to the profession of our great land, and to our citizens, since the quality of medical care has deteriorated wherever the program has been introduced. The English plan recently instituted will not fail in spite of the opposition of the majority of the profession in the British Isles. The establishment of a tribunal, appointed by the Minister of Health, which accepts complaints from any source and tries a physician before a hand-picked court, prevents the British doctor from expressing his honest opinion, fearing reprisals. His only appeal is to the Minister of Health who occupies the position of Director of Medical and Hospital policies, and who also directs the socialist program in many other fields. Financially the plan cannot fail for it depends upon the taxes taken from the people to support the program. Taxation, at least at the moment, seems unlimited. As some prominent British leaders have said, the National Health program of the British Isles will cost nothing—it is merely a redistribution of wealth.

Should such a system be instituted in America, be assured it will be sugar-coated to appeal to a large number of our profession and will be agreed to by a majority of the citizens. A plan based on payment to the physician on a fee-for-service basis will be the entering wedge, and following its failure, (for it must fail due to abuses by physician and patient) the British "capitation system" will be adopted until the social planners are ready to communize America and place every physician on a salary paid by the federal government from taxes. Remember Lenin's words: ". . . . Socialized medicine is the keystone in the arch of the socialist state. . . ."

The duty of every physician is to familiarize himself with the dangers of socialized medicine and to inform the public of its dangers as a stepping stone in the complete destruction of the last surviving free country—a nation wisely established by our founding fathers who sought refuge from the dictatorial governments of Europe.

One hesitates to criticize the farm support program by which the government guaranteed the price of corn, cotton and wheat. Everyone is interested in seeing the farmers receive high prices for their products. The exporting of large quantities of these materials abroad, and keeping the cost of these articles high, can assure the farmers that subsidies will be available; but should prices drop and demands decrease, it may well be that it will cost the federal government three billion dollars a year to support the program. This may be of little importance in a country accustomed to spending in terms of billions of dollars, but the farmer should understand that as the government encroaches upon his activities, offering subsidies as a token, that same government

eventually directs the policy of the farmer. Witness the English farmer's position. He no longer has true ownership of his land and can be dispossessed when the government feels that he no longer is farming according to the policy of the government.

As we, in this great republic, move more and more to the left, it is disheartening to witness the indifference of our citizens to the slow-moving but deadly tentacles that are encircling our nation.

What we need in this country, as never before, is a great revival of faith in a Supreme Being. No greater barrier to a God-less ideology exists than the Church. Children, well-grounded in the principles of their religion, cannot be duped by a fantastic philosophy aimed at destroying their belief in God and weakening the faith in their native land. A joint statement of Protestant, Catholic, and Jewish leaders on economic justice was issued on October 16, 1946, and it states, ". . . . Never before has the material organization of life required so urgently a common philosophy and morality. Yet, so far are we from having these that our society is actually threatened with spiritual and moral dissolution. That is the essence of the modern social crises. . . ."

Gentlemen of a great profession, you are endowed with an unusual gift in your knowledge and skill to prevent illness and heal the sick, but you have other duties equally important to your fellowman—a duty which involves his security and the welfare of his offspring. Let us not be indifferent to dangers threatening our people, our patients, our friends, our community, who look to the members of the medical profession for leadership, not only as members of our great profession but as citizens, and as Daniel Webster once said, ". . . . every encroachment, great or small, is important enough to awaken the attention of those who are entrusted with the preservation of a constitutional government. We are not to wait till great public mischief comes, till the government is overthrown or liberty itself is put in extreme jeopardy. We shall not be worthy sons of our fathers were we so to disregard great questions affecting the general freedom. . . ."

144 Golden Hill Street

ONE DOCTOR'S OWN 13-POINT PROGRAM

While everybody is talking himself hoarse about medical plans, Dr. Anthony B. Diepenbrock of San Francisco comes up with his own 13-point health program:

1. Continue to sit on your fat derriere and do nothing.

2. Be apathetic and, like 5,000,000 registered Republican voters who failed to vote, do not bother to make your opinion known. If you think, as they did, that your opinion or your vote is not worth anything, the opposition will agree with you and act accordingly, as they have.

3. Write an occasional letter to your congressman, tell him off, and then explain proudly to the interns in the surgical dressing rooms how smart you are and what a stinker your congressman is.

4. Tell everybody you see that the gag is up, and we might as well prepare for the inevitable.

5. Moan and groan and issue explosive and unprintable epithets.

6. Refer to your medical leadership as a group of impotent, ineffective and bumbling ignoramuses.

7. Make speeches before sympathetic lay audiences, and convert those who already believe in free enterprise.

8. Don't bother to tell your county society heads, your state society heads, or your national association heads what you want them to do. Expect them to find a way for you without your guidance.

9. Scream about high medical society dues and forget that our friends in the trade unions demand many times what we pay: in other words, make the situation as difficult as possible, then grumble about it.

10. Oppose any program developed by the majority of your colleagues because it demonstrates your superior wit and your general greatness.

11. Remain superbly and learnedly dignified when Joe Doakes asks why you oppose state medicine. Brush him aside with any insult you can think of. Joe will like you for that.

12. Don't bother to use the selling methods which actually bring messages before the public. Continue to depend on occasional radio feature programs. Billboard advertising, newspaper advertising, national magazine advertising, radio advertising and above all, continuous and daily radio spot programs over national hookups and all such like are too commercial, too troublesome, too expensive and too undignified: don't use them.

13. Above all, disregard the "little guy"—the one with a vote. Tell him nothing; push him around. He doesn't know anything anyhow.

—Reprinted from the A.M.A. Secretary's Letter.

NONUNION OF THE CLAVICLE
(A CASE REPORT)

E. V. Davis, M.D., Camden, N. J.

A review of the literature over the past two decades, on the subject of nonunion of the clavicle, impresses one with two facts: (1) nonunion of the clavicle is not as rare as we generally believe it to be, especially in adults; (2) nonunion of the clavicle in children does occur but naturally is less frequent. At times, in children, it is difficult to determine whether a pseudoarthrosis was present prior to the injury which produced the symptoms and clinical findings.

In 1941, Ghormley, Black and Cherry,[1] reported twenty cases of nonunion of the clavicle. Two were children ages two and three respectively. The younger child was considered to have a definite pseudoarthrosis. There was a question about the second case. The latter was treated by Onlay bone graft with a successful result.

Since nonunion of the clavicle in children is uncommon, the following case report was thought to be of sufficient interest to have recorded.

A white female, age four, came to the ortho pedic clinic* complaining of pain in the right clavicular region. At the age of fourteen months she had fallen from a height of four feet and landed on the right shoulder. Immediate disability and deformity developed. Her family physician made a diagnosis of a fracture of the right clavicle and treated it by application of a figure of eight bandage for three weeks. Thereafter, she was allowed full use of the extremity. Her mother noticed that the deformity continued and that the child complained of pain in the shoulder whenever the extremity was raised to shoulder level or above.

The child walked with the head and body shifted to the right protecting the right shoulder which was drooped and in a forward position. There was a deformity of the right clavicle at the junction of the middle and outer thirds. Abnormal motion was present and palpable at the maximum point of deformity. Passive motion of the shoulder caused pain in flexion and abduction. X-ray study showed a nonunion of the right clavicle. (See Plate I.)

Operation consisted of exposing the outer two-thirds of the clavicle and removing the intervening fibrous and muscle tissue and the sclerotic ends of



Figure 1

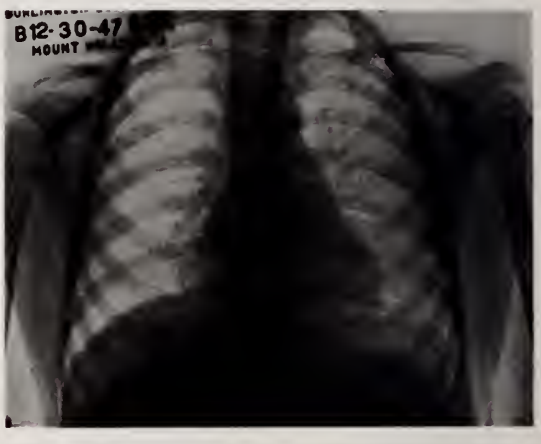


Figure 2 A



Figure 2 B

* Of the Burlington County Hospital, Mt. Holly, N. J.

1. Ghormley, R. K., Black, J. R., and Cherry, J. H.: "Ununited Fractures of the Clavicle"—American Journal of Surgery, 51:343 (February 1941).

the bone. A sliding diamond-shaped type of graft was removed from the mesial portion of the clavicle. The apex of the graft was wedged into a prepared bed in the outer third of the clavicle and the base of the graft was fixed in contact with the most lateral portion of the sternal segment. The position was maintained satisfactorily by the wedging and suturing of the periosteum. A plaster of paris shoulder Velpeau-like bandage was applied.

Eight weeks following the operation motion could not be demonstrated clinically and the graft was thought to be solid. X-ray examination at this time showed healing of the graft in its new position. (See Plate II.) The cast was discontinued and she used a sling for a period of one month. She was examined ten months later and had full range of motion of the shoulder without pain. The general overall posture was considerably improved.

SUMMARY

1. A case of nonunion of the clavicle in a child four years of age is presented. The history and subsequent clinical course favored nonunion rather than a fracture through the site of a previous pseudoarthrosis.

2. It is not necessary to apply an Onlay bone graft in this type of case, in this age group, to obtain a satisfactory result.

300 Broadway

ETHYL HEXANEDIOL MOSQUITO REPELLENT

Rutgers 612 (ethylhexanediol) has been found to repel the *Aedes aegypti* for a longer period if mixed with one of the alcohols than if used in pure form. According to a report in the National Research Council's Abstract Bulletin of the Insect Control Committee Coordination Center, certain substances augment the effective duration of a repellent while others decrease the effectiveness. The most effective solvents for Rutgers 612 were those in which the concentration of isopropyl alcohol was 30 per cent, heptyl alcohol 50 per cent, benzyl alcohol 80 per cent or glycerol 50 per cent.

PHARMACOPOEIAL HEADQUARTERS

In conformity with the instructions of the 1950 Pharmacopoeial Convention, as embodied in the new by-laws adopted at the convention in Cleveland in 1942, the Board of Trustees have selected permanent U.S.P. Headquarters. The building is located at 46 Park Avenue, New York City, and it will be dedicated for use as the Headquarters and Administration Offices of the Pharmacopoeia of the United States.

The new Headquarters is within walking distance of Grand Central Station, the Pennsylvania Railroad, and the Air Lines Terminal.

PUBLICATIONS OF THE WORLD HEALTH ORGANIZATION

Private practitioners may now obtain any of the below listed publications of the World Health Organization by sending remittance to

International Documents Service
Columbia University Press
2960 Broadway, New York City 27

Specify whether you wish the English language or French language edition.

Chronicle of the World Health Organization. A monthly publication discussing trends of the work in the world health field and reports of committee meetings. $2 per year or 20c for any one monthly issue.

International Digest of Health Legislation. Extracts from national laws dealing with health, welfare and social legislation. Annual subscription $2.50.

Bulletin of the World Health Organization. Articles on technical subjects connected with health. Annual subscription $6.00.

Epidemiologic and Vital Statistics Report. Monthly publication giving statistics on morbidity and mortality, covering the world, supplemented with text articles on relevant subjects. Any single issue 50c; Annual subscription $5.00.

Official Records of the Interim Commission are also available at 25c each. Specify the session required.

AN EVALUATION OF THE ANTIHISTAMINIC DRUGS *

Arthur Dintenfass, M.D., Atlantic City, N. J.

The histamine theory of anaphylaxis presented in 1910 by Dale and Laidlow [1] remained for many years, only an interesting theoretical concept and was not followed by any systematic search for antihistaminic compounds. Subsequently, many methods aiming at non-specific inhibition of anaphylactic shock and allergic manifestations were proposed. For the most part, they were impractical, too hazardous or ineffective. Among these the following are mentioned so that they may be discarded: barbital, tribromoethanol, potassium salts, sodium thiosulphate, ascorbic acid, and ethylene disulfonate.

Recently, histamine has been used in an attempt actively to desensitize or hyposensitize the allergic patient. This has not been found effective. There is a wide range of sensitivity to histamine in different persons and no evidence that variations are greater among allergics than non-allergics. There is no sound basis for belief that allergic manifestations are produced because of a heightened sensitivity to histamine. If histamine has to do with the allergic reaction, it is because an amount above the tolerance dose is released from the tissues. Most authorities [2] agree that injections with histamine do not increase the individual's tolerance.[3] Histamine-azo-protein has also been found ineffective except possibly for a non-specific action. Histaminase is an enzyme capable of destroying histamine *in vitro,* but it has no effect on histamine nor on anaphylaxis in the living subject.

ANTIHISTAMINE SUBSTANCES

In 1933, Fourneau and Bovet [4] first demonstrated that certain phenolic ethers counteract the action of histamine, both *in vitro* and *in vivo.* Many such compounds have been and still are being synthesized in Europe and this country. Many have been discarded because of their toxicity.

The most promising include "benadryl hydrochloride" (Parke, Davis & Co.)—diphenhydramine hydrochloride; "pyribenzamine hydrochloride" (Ciba)—tripelennamine hydrochloride; "neoantergan" (Merck)—pyranisamine maleate; "thenylene" (Abbott)— ethylenediamine hydrochloride; "thephorin" (Roche)—phenindamine, a polycyclic amine; "neohetramine" (Wyeth) — thonzylamine hydrochloride; "histadyl" (Lilly)—thenylpyramine hydrochloride, "decapryn" (Merrell); and diatrin hydrochloride (Warner).

These drugs specifically counteract most of the physiologic effects of histamine: in animals they diminish capillary permeability resulting from histamine, counteracting the histamine wheal. That is why they must be avoided for 24 hours prior to performance of diagnostic skin tests. They raise blood pressure which had been lowered by histamine. They inhibit secretion induced by histamine in the lacrimal and salivary glands and in the mucous glands of the bronchial tree. This is clinically significant because excessive mucous secretion is present in allergic rhinitis and asthma. They produce local anesthesia whether injected or applied topically. They prevent death from a lethal injection of histamine in experimental animals. The basis of the pharmacologic action of these drugs is their competition with the liberated histamine in attachment to the receptor cell. Therefore, the benefit is symptomatic and lasts only for a few hours.

Antihistamine drugs possess a large margin of safety. The toxic or lethal doses in animals are from 10 to 50 times greater than the therapeutic doses effective in blocking the action of histamine. They have been administered daily

* Presented at the staff meeting of the Atlantic City Hospital, April 21, 1948. Dr. Dintenfass is a member of the teaching staffs of the University of Pennsylvania, Dept. of Allergy, and the Graduate School of Medicine of the University of Pennsylvania, Dept of Otolaryngology.

1. Dale, H. H. S., and Laidlow, P. P.: Journal of Physiology, 41:318, (1910).

2. Feinberg, Samuel M.: Journal of the American Medical Association, 132:702, (Nov. 23, 1946).

3. Waldbott, George L.: Journal of the American Medical Association, 135:207, (Sept. 27, 1947).

4. Fourneau, E., and Bovet, D.: Archives Internationale de Pharmacodynamie et de Therapie, 46:178, (Oct. 15, 1933).

in relatively large doses to dogs over extended periods of time [5] without producing any toxic symptoms.

Antihistamine drugs are effective whether taken by mouth, or given by hypodermic, intramuscular or intravenous injection. The duration of action of the usual therapeutic dose—25 to 50 milligrams is four to six hours. There are no specific contraindications for therapy with the antihistaminics other than the "side effects". Other anti-allergic drugs may be administered simultaneously.

CLINICAL APPLICATIONS

The effects of the antihistaminic drugs are similar and reflect their powerful antagonism to histamine. Two actions are outstanding: Ability to inhibit "whealing" and ability to "dry up" mucous secretion. Urticaria responds most dramatically; in both the idiopathic and the serum sickness type there is complete subsidence of symptoms in 85 to 95 per cent of patients within twenty minutes after the ingestion of 50 to 100 milligrams of the medication. In other allergic diseases in which whealing and edema are prominent, the benefit would be equally as striking, if it were not for the fact that some degree of secondary infection usually becomes rapidly superimposed on the primary allergic changes. It follows that the antihistaminic drugs are most beneficial in *hay fever* during the early part of the season when the sinuses and nasal mucosa secrete clear watery fluid and when there is no secondary infection. The same benefits are obtained in perennial rhinitis and allergic sinus disease in the absence of suppurative changes.

The effects obtained in *asthma* have been inconstant and little understood. This is due to failure to consider the presence of secondary infection. Results are gratifying in incipient asthma, both in the infantile type, characterized by edema in the lungs, and in the pertussis-like cough of allergic bronchitis, which so often is the beginning of asthma. If the disease has progressed to the stage where there is thick, tenacious expectoration, there is little if any benefit from oral administration. Intravenous injection of 10 to 50 milligrams may briefly control severe attacks of asthma [5] when aminophyllin and epinephrine fail. These preparations are similarly used in shock from ingestion or inhalation of antigens to which patients are extremely sensitive or in shock due to the accidental intravenous injection of therapeutic antigens.

In atopic *eczema* and contact dermatitis of the poison ivy type, the pruritus is effectively controlled, especially if it is associated with localized edema without secondary infection. The anesthetic properties of the antihistamines have been used by topical applications through compresses and ointments.

In allergic *headache,* it is difficult to evaluate the effectiveness of these drugs. Experimentally, prophylactic injections of "benadryl" prevent headaches induced by histamine; and in a similar way, histamine cephalalgia responds to intravenous injection.

Allergic *conjunctivitis* has been materially benefited by the topical administration of weak solution as well as by oral medication.

Reactions to penicillin and sulfonamides, as well as to other drugs, have been readily controlled. A 1-to-1000 solution of "benadryl" was found helpful in the treatment of local and generalized reactions in insulin—sensitive diabetics.

Early administration of the antihistaminic drugs has alleviated or abolished the symptoms of the common cold [6] of virus origin.

My own experience with these drugs in oto-rhino-laryngologic practice has largely confirmed these reports. In addition, I have noticed the following: in nasal surgery, particularly where there are hypertrophic or allergic membranes, pre-operative antihistamine medication has lessened congestion and possibly effected a secondary decrease in the bleeding produced during surgery. Several cases of acute laryngo-tracheo-bronchitis responded to intravenous or intramuscular injection of "benadryl" with rapid decrease in symptoms of inspiratory obstruction. A case of esophagitis of inflammatory nature with marked edema of the oropharynx and hypopharynx was benefited when antihistamine drugs were

5. Loew, E. R., and Unna, K. R.: Experimental Basis of Therapy with Antihistaminic Drugs, *Scientific Exhibit*, American Medical Association, Atlantic City, N. J., (June 1947).
6. Brewster, John M.: U. S. Navy Medical Bulletin, 47:810, (1947).

used in conjunction with other measures. Patients with Meniere's symptom-complex or Meniere-like syndromes (with vertigo and tinnitus where there is presumable edema of the labyrinth) have demonstrated improvement under antihistaminic therapy. Combinations of these drugs have been useful where undesired side-effects occurred; for example, "thephorin", which may give a stimulant effect, has been administered during the day and "benadryl" or "pyribenzamine" given at bedtime.

TOXIC EFFECTS

Antihistamine drugs have a high incidence of side reactions among which are sedation, drowsiness, and dizziness associated with a peculiar feeling of "floating". Headaches, dryness in the throat, nausea, nervousness, irritability, and muscular twitching are other side-effects. I have found these reactions more frequent and of greater intensity with "benadryl" than with the other related compounds. The sedative effect may be used to good advantage, and if necessary, may be counteracted by the use of caffeine or amphetamine. There are no reports of organic damage as a result of prolonged use of antihistaminic drugs, but the remote toxic effects have not yet been sufficiently studied. Several patients [7] have developed allergic manifestations such as dry allergic cough, urticaria or dermatitis and shock.

SUMMARY

The antihistaminic drugs represent an advance in the treatment of allergic diseases, but their usefulness depends on complete familiarity with their limitations. They are purely palliative, have unpleasant side effects, and do not affect the course of the disease. Their efficacy is unpredictable. Future investigation may lead to more potent preparations. It is not known whether histamine release is the only injurious part of allergic reactions and therefore we can not hope that these drugs will be completely effective in the relief of allergic manifestations. We do not even know whether the creation of immunity is being interfered with by these drugs. Antihistaminic drugs should be used as an adjunct to (and in conjunction with) the specific allergic methods of elimination and hyposensitization.

1616 Pacific Avenue

7. Geiger, J., Rosenfield, S. Z., Hartman, D. L.: Journal of the American Medical Association, 133:392, (Feb. 8, 1947)

BENIGN NERVOUSNESS

Many persons whose ill health may be traced to non-physical factors are probably suffering from "benign nervousness" rather than from psychoneurosis or psychosis, minor and major mental diseases, a study made by Allan and Kaufman indicates. Writing in the December 18 Journal of the American Medical Association, Drs. Frank N. Allan and Manuel Kaufman of the Lahey Clinic say that among 1000 persons who came to the clinic for general medical examination, 594 had physical disorders only, 272 had purely nervous and mental complaints, and 134 had a combination of physical and neuropsychiatric disorders.

In the group of 406 patients with some mental or nervous disorder, 75 were found to have psychoneuroses, three were found to have psychoses, and seven were found to have borderline psychotic problems. A diagnosis of neither psychosis nor psychoneurosis appears justified in 321 cases.

Although no diagnostic term has been generally accepted for these cases of benign nervousness, the physicians say, there is just as much difference from a practical standpoint between the benign nervous conditions and neuroses as between neuroses and psychoses.

"A neurosis is largely dependent on an intrinsic defect in the personality of the persons and is usually considered to be an expression of subconscious emotional conflicts. Benign nervousness, on the other hand, is largely the result of external factors."

"A person with a benign nervous condition can usually be treated satisfactorily by a general practitioner and will often get along best with the family doctor whom he knows well," advise the physicians. "Patients with the more deep-seated nervous disorders, however, deserve the special management of the psychiatrist."

DIAGNOSIS AND TREATMENT OF ANO-RECTAL DISEASE

Julius Gerendasy, M.D., Elizabeth, N. J.

For many years it has been assumed that ano-rectal diseases were due solely to local causes. This view has resulted in over-emphasis on the treatment of the local manifestations *only* and an insufficient appreciation of the many etiologic factors concerned in terminal bowel disease.

In the past, many patients with anal symptoms were treated without considering that the causes were often elsewhere in the body and that recognition of these primary causes was essential to the general management of ano-rectal disease. Failure to search for, recognize and treat these causes reduced materially the number of patients relieved or cured.

For convenience, the important etiologic factors concerned in ano-rectal disease may be divided into the following general groups: (1) Remote causes, (2) Nutritional causes, (3) Systemic causes, and (4) Local causes.

(1) The first refers to focal infection as a cause of disease. (2) The second group relates to nutritional disturbances with emphasis on the importance of vitamin deficiency as a cause of colon disease. (3) The third group has to do with the influence of systemic disease, especially cardiac and hepatic dysfunction and disease of the hematopoietic system. (4) The final group includes factors which lower local tissue resistance and creates the soil upon which disease processes develop in the terminal bowel.

REMOTE CAUSES

The importance of a chronic localized focal infection [1] as a cause of disease in distant organs has long been recognized.[2] The nose, teeth, tonsils, and sinuses are the most frequent sites of focal infection and the origin of many infectious processes elsewhere in the body, including the colon and ano-rectum. For example, organisms swallowed from an infected nasal sinus may pass through the gastro-intestinal tract and infect this region by direct contamination. Infection may be caused by pathogenic bacteria passing through the lymphatic and blood stream and excreted through the wall of the intestinal mucosa [3] into the lumen of the intestines.

The colon likewise is an important and frequently neglected focus of infection. A variety of pathogenic bacteria, such as the Streptococcus hemolyticus and viridans, the Staphylococcus aureus, and under certain circumstances colon bacilli, the enterococcus and diplococcus etc., are activating agents for a pathologic process in the terminal bowel.

NUTRITIONAL CAUSES

Clinical and experimental studies [4] have indicated that dysfunction of the gastro-intestinal tract may be due to the insufficiency of certain vitamins. Of these, the B complex group [5] is the most important. Deficiency of this group causes changes of the intestinal mucosa which result in lowered resistance to infection in the colon, as in ulcerative proctitis, (Mackie). An *inadequate* amount of vitamin-containing foods is an important contributory factor in the pathogenesis of ano-rectal disease.

SYSTEMIC CAUSES

The terminal bowel may be secondarily affected by disease processes elsewhere in the body. This may be the result of interference in the normal circulatory or nerve function or toxemia, bacterial or metabolic in origin. Patients often receive prolonged treatment for a supposed local condition when the disease process is actually present in some other organ and affects the terminal bowel only secondarily. Cardiac, liver and genito-urinary diseases may be included as well as diseases of the female pelvic organs and the hematopoietic system. Experience suggests that approximately two-

1. Billings, Frank: *Focal Infection*, Appleton Company, New York, 1916. Page 166.
2. Andresen, Albert F.: Annals of Clinical Medicine, 3:136 (August 1925).
3. Felsen, Joseph: Review of Gastroenterology, 5:114 (June 1938).
4. McCarrison, Ralph: British Medical Journal, 2:611 (September 26, 1936).
5. Chesley, F. F. *et al.*: American Journal of Digestive Diseases, 7:24 (January 1940).

thirds of ano-rectal diseases are due to local causes and distant foci of infection, and one-third to systemic causes.

LOCAL CAUSES

While all the factors enumerated above, singly or in combination may play a part, in the last analysis, the vulnerability of this area to disease depends upon the health of the ano-rectal tissues. Some of these local conditions are inherent in the function (storage) and anatomic characteristics (sphincter mechanism) of the terminal bowel. Others are due to actual mechanical trauma (as by the passage of a hard stool or the introduction of an enema tip or a sharp pointed thermometer). Chemical injury of local tissues may be caused by diarrheal stools (when strongly acid or alkaline) or by a preponderance of fecal indol and skatol. Occasionally, a local allergic sensitivity to food, parasites and even bacteria may lower tissue resistance and favor local disease.

Commonest cause of local trauma is constipation and the various abuses practiced to overcome it. Most serious of the latter is the promiscuous use of mineral oil or saline laxatives and soapy enemas, by means of which the consistency of the stool is altered and the growth of pathogenic bacteria favored. The injurious effect[6] of mineral oil laxatives are many.[7] For example, through leakage, it interferes with proper anal hygiene and causes local irritation (excoriations, fissurations, and pruritus). It seriously interferes with the absorption of the water-soluble vitamins, especially A and D, which are important in the health of the colon and the resistance to infection of the colonic tissues.

DIAGNOSIS OF TERMINAL BOWEL DISEASE

As in all other medical problems, a good history is an aid in establishing a diagnosis. In proctologic disorders its value lies chiefly in determining the factors which predispose to ano-rectal disease. It is important to know the patient's living conditions, habits of eating and any activities which interfere with normal bowel function and cause constipation. The use and abuse of alcohol, tobacco, coffee and spices and the emotional makeup of the individual are included in the history.

General physical examination preceding the proctologic examination, should cover the various organs of the body, during which search should be made for systemic disease. The correction of this is essential to good therapeutic results.

The three principal methods used in the diagnosis of ano-rectal disorders are *visual* inspection, *digital* palpation and *instrumental* proctosigmoidoscopic examination. The omission of these aids to diagnosis is inexcusable in a physician who undertakes to treat proctologic disorders.

For the purpose of treatment, ano-rectal disease may be divided into two main groups: the acute lesions and the more chronic conditions. The former are, as a rule, medical problems, while the latter require surgical consideration. This article is primarily concerned with the medical treatment of the first group.

The acute lesions are the result of a simple inflammatory reaction to a short-lasting injurious agent. The tissue changes are not severe and function is only temporarily impaired. Some of the conditions included in this group are outlined below:

ACUTE LESIONS

1. Uncomplicated acute hemorrhoids.
2. Acute (recent) fissure-in-ano.
3. Papillitis and cryptitis (analitis).
4. Ulcerative diseases of the rectum.
5. Prolapse of rectal mucosa (first degree).
6. Acute colo-proctitis (non-specific or specific).
7. Pruritus ani.
8. Acute sphincter spasm secondary to entero-spasm.
9. Excoriations, erosions.
10. Wounds, abrasions, lacerations.

These usually respond to medical therapy applied to the local and remote causative factors previously outlined.

The conditions requiring surgical treatment are listed below:

SURGICAL CONDITIONS

1. Internal hemorrhoids complicated by prolapse, anal stenosis due to pectenosis, etc.
2. Chronic fissure with indurated base and edges and marked sphincter spasm.
3. Abscess of all types.
4. Fistula in ano.

6. Thiele, G. H.: Southern Medical Journal, 35:869 (October 1942).
7. Morgan, J. W.: Journal of the American Medical Association, 117:1335 (October 20, 1943).

5. Chronic discharging sinuses.
6. Benign tumors of rectum or anal canal (papilloma, adenoma).
7. Stricture of rectum (specific or non-specific).
8. Hypertrophied sphincter due to chronic infection.
9. Third degree rectal prolapse.
10. Peri-anal tuberculous infection.

Surgery here attempts to return the parts to their normal anatomic relationship by the removal of a gross interference with physiologic function. This, as a matter of fact, is axiomatic of all necessary and properly performed surgical intervention.

TREATMENT

There are three important considerations in the treatment of ano-rectal disease.

1. Relief of acute symptoms.
2. Curative measures.
3. Prevention of recurrence.

Relief of acute symptoms is usually secured by any of the means which relax sphincter spasm, one of the commonest causes of ano-rectal pain. Relaxation may be secured by means of repeated hot fomentations or "sitz baths" or by the insertion of an opium and belladonna suppository. Where distress is less severe, a suppository or ointment containing an anesthetic drug, such as, 5 per cent benzocaine may be prescribed. The peri-anal intramuscular (deep) injection of an oil soluble anesthetic is the most reliable method of relieving pain. With the supplementary measures mentioned below, the latter procedure may also be curative in acute hemorrhoids or fissure.

Curative measures may be employed after the acute symptoms subside. The following measures are usually efficacious: A tampon of 20 per cent argyrol, freshly prepared, may be inserted into the rectum through a proctoscope two or three times a week, preceded by a small cleansing enema. A suppository containing 5 grains of finely powdered sulfathiozole in 25 grains of cocoa butter inserted after defecation and at bedtime is also efficacious. A 5 per cent sulfathiazole ointment* may be applied with the cotted finger.[8] A small amount of sulfanilamide powder instilled into the rectum will often cure local inflammation quickly. Another useful drug is penicillin ointment (500 units per gram) or tyrothricin cream applied with the cotted finger into the rectum. A useful drug for both external and internal application is a 1 to 3 per cent solution of gentian violet. The oral administration of sulfasuxidine, 2 grains to each pound of body weight per day, or sulfathalidine, 6 to 10 tablets daily in divided doses, will "inhibit, arrest, kill or prevent certain bacterial infections", (Pruitt). These measures often lead to gratifying results.

In simple uncomplicated piles or mucosal prolapse, the injection into the base of the prolapse of a sclerosing solution, such as 5 per cent phenol in almond oil, is a satisfactory office treatment.

The cure of the local conditions is intimately related to the following preventive measures.

Prevention of recurrence. In the order of importance these measures are:

(A) Regulation of bowel function by surgical removal or medical treatment of anal lesions, or by diet or by personal hygiene.

(B) Removal of foci of infection.

(C) Dietary improvement of general health.

(D) Avoidance of local trauma.

(E) Treatment of existing systemic disease.

BOWEL FUNCTION

1. Ano-rectal lesions frequently retard bowel function, especially if associated with pain and sphincter spasm. The more common of these are anal small fissure, cryptitis, hemorrhoids and pruritus ani. These conditions must be corrected before satisfactory bowel function can be restored. A "satisfying" movement means the easy passage of a good-sized formed stool, (Cowgill). Hardness of stool, causing pain and difficulty of elimination, will often be interpreted by the patient as constipation.

2. The diet in constipation should emphasize bulk in the form of the mildly laxative fruits (apricots, prunes, etc.). These should be served with two of the meals besides two

* Sulfathiazole Ointment: Sulfathiazole 5%, Triethanolamine 2%, Distilled Water 24%, White Beeswax 7.5 %, Heavy Mineral Oil 61.5%.

8. Cochran, John R.: Surgery, Gynecology and Obstetrics, 79:326 (September 1944).

green vegetables daily. Since the emotional factor is so important, defecation should be performed at a time of day when enough time and concentration can be given to this important function. With many individuals this is after the evening meal. Occasionally, a hydrogel substance which creates bulk will be found useful. Agar agar granules (2 or 3 tabespoonfuls at a time) are as good as any of the commercial products, and an adequate fluid intake is essential; at least eight glasses of water in 24 hours.

3. Care in personal hygiene includes the care of the mouth and teeth. Missing teeth must be repaced with artificial dentures. Proper cleansing of the anal verge,[9] regular and proper eating, working and sleeping habits, are also essential.

FOCI OF INFECTION

Sometimes the most satisfactory way to relieve a disease is by the recognition and removal of a causative focus of infection. With this, it is often necessary to employ an autogenous vaccine to stimulate antibody production against residual bacterial toxemia. This is in addition to any other systemic treatment (as vitamins, liver and iron for anemia) which builds up immunity to disease.

DIETARY IMPROVEMENT OF GENERAL HEALTH

Ordinary diets frequently lack sufficient residue to insure a natural bowel movement. They are poorly balanced, with an excess of refined starches and sugars and insufficient vitamins and minerals. The results of vitamin deficiency on the function of the gastro-intestinal tract have been noted. However, they are but part of the total nutrient requirement of the body. The selection of a normal healthy diet is, in the last analysis, the basis for correcting many forms of vitamin deficiency. A diet containing an adequate amount of milk, cream, butter, eggs, meat, fish, green and yellow vegetables and fruit, will, as a rule, supply the necessary vitamins.

AVOIDANCE OF LOCAL TRAUMA

The frequent and thoughtless abuse to which the anal canal and lower colon are subjected is a most unnecessary evil. It is regrettable that much of this evil is taught and practiced in the hospital and clinic. Despite the inherent resistance of the anal tissue to injury, and its healing ability, many of the common local diseases are due to trauma from various causes, some of which have already been enumerated.

CONCLUSION

1. In the treatment of ano-rectal disease, it is necessary to know the etiologic factors. When the exciting cause is known it must be treated or removed.

2. Disease is a complex process, often the result of several factors. When the natural limit of resistance or immunity of an organ is exceeded, the first change which takes place is functional. This is the optimum time for treatment. Neglect at this time leads to anatomic changes which severely interfere with function. Treatment at this early stage should include all the supplementary measures necessary to restore normal function and prevent recurrence.

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9. Gerendasy, Julius: The Journal of The Medical Society of New Jersey, 43:97 (March 1946).

M.D.'S GETTING YOUNGER ALL THE TIME

Before the war the median age of all American physicians was close to 46. Today the median age is 44.4 years—a significant drop in less than a decade. From these and other figures compiled by the A.M.A. Bureau of Economic Research, it appears that the ratio of physicians in the 35-to-49 age group rose from 31 to 36 per cent. Other studies show that each new physician is destined to remain in the "medical population" about forty years.

New Jersey physicians have a median age of 43.2 compared with a national median of 44.4. California has an appreciably older group of M.D.'s, their age median being 45.2. The oldest group in the country is in Arkansas where the age median is 55.2 and the youngest is in Utah where the median age is only forty.

CONGENITAL MALFORMATIONS IN THE UPPER RESPIRATORY TRACT*

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For the purpose of this paper, I have chosen three conditions which are rare but important, because early recognition and prompt surgical interference may mean the difference between life and death in the infant. I will discuss choanal atresia, congenital laryngeal stenosis and dermoid tumor of the nasopharynx.

Choanal atresia is of practical importance, even if rare, because if it occurs as a bilateral condition in the newborn, early diagnosis and prompt treatment will often prevent death of the patient. The first description of choanal occlusion, as reported by Durwood, Lord and Polson,[1] is ascribed to A. W. Otto in 1930 as a result of anatomic studies but his descriptions were not clear as to cause or extent. In 1945 Durwood, Lord and Polson[1] published a survey of the cases since 1930 and found 390 authentic cases. It would seem doubtful that more than 500 have been described altogether. Kazanjian[2] traced ten cases in a period from 1922 to 1938 in the Massachusetts Eye and Ear Infirmary, from a total of 62,228 patients, or 0.016 per cent.

Wilkerson and Cayce[3] call attention to the fact that the condition may be familial, based on their survey of familial cases described in the literature, as well as on their own report of choanal occlusion in three sisters. Stewart tells of bilateral atresias in two sisters whose case histories mentioned a brother who had died in infancy from asphyxiation, probably due to the same malformation. In one case there was a family history of a mother with a right unilateral occlusion. A possible history of choanal occlusion in the family, therefore, should always be checked.

With the formation of the olfactory pits, as depressions from the surface extending over the primitive mouth, a partition comes into existence between oral and nasal cavities. Between the two primitive nasal fossae a median partition is left to form the basis of the nasal septum. When the nasal pits are small they are excluded from continuity with the mouth by a buccal nasal membrane; this membrane is only the opposed epithelial coverings on the maxillary process, the median nasal and lateral nasal folds. As extension of the nasal fossae takes place and with the growth of all the adjacent structures, this bucco-nasal membrane becomes stretched and breaks through, so that continuity is established between the buccal and nasal cavities. This orifice is at first placed well forward on the roof of the mouth but extends backwards so that. in time, two longitudinally disposed deficiencies may be seen on the roof of the mouth, separated by a median mass which is the lower border of the nasal septum. These elongated deficiencies are the primitive posterior nares and they cleanly delimit the nasal regions above, from the oral and pharyngeal regions below.

Secondarily, the palatal folds grow inward from the maxillary processes and meet each other in the midline and also fuse with the lower border of the nasal septum. This fusion with the nasal septum is not, however, co-extensive with the whole anterior posterior extent of the primitive posterior nares; the palatal folds encroach upon and cover only the anterior parts of the posterior nares; the posterior ends of the latter remain open as the definitive posterior nares. The posterior parts of the palatal processes, fusing with each other but not with the nasal septum, form the basis of the soft palate. Then the definitive posterior nares is not a new feature, it is a persistence of the posterior portion of the primitive posterior nares.

To explain atresia developmentally there are several possibilities.

The first is that the posterior extent of the primitive nares may have been inadequate and when the palatal folds approached the midline they would fuse with the whole extent of the lower border of the septum. Thus the nasal fossae would have no outlet at their pharyngeal end and the remaining tissues might subsequently persist as a thick or thin membrane, or might break through. Such a theory allows for the variety of membranes which may be found and also for their variation in position. Secondary ossification within the closing membrane might well occur.

Another possibility is the formation of a normal primitive posterior nares with subsequent complete fusion of the palatal folds with the whole extent of the lower border of

* Read before The Medical Society of New Jersey, April 27, 1948.

1. Durwood, D., Lord, M., and Polson, S.:Journal of Laryngology and Otology, 60:461 (December 1945).
2. Kazanjian, V. H.: Archives of Otology, 44:261 (Sept. 1946).
3. Wilkerson, W. W., and Cayce, L. F.: Transactions of the American Academy of Ophthalmology and Otology, page 234, (January 1948).

the septum. This, however, is not likely, since a soft palate is present in atresia, indicating a normal disposition of the posterior ends of the palatal folds. Further, the septum which occludes the posterior nares in cases of atresia is not shown to contain muscle as might be expected were it formed by abnormal disposition of tissues intended for the soft palate.

Congenital atresia most likely results from a failure in full development of the primitive posterior naris at the posterior end.

The diagnosis of choanal atresia is usually easy to make if one keeps in mind the following cardinal points:

In unilateral occlusion:

1. Clear mucus on floor of nasal fossae.
2. Turbinals are likely to be smaller on the affected side.
3. No nasal respiration.
4. Inability to pass a probe into the nasopharynx.

In bilateral occlusion:

Observed at birth—no nasal respiration and inability to nurse.

The operative procedures used in the three cases that I am reporting consisted of breaking and removing the membranous obstruction and leaving a tube in the nasopharynx, through the nose. In the bilateral case a portion of the septum. posteriorly, was removed as well as the membrane and the tube was placed through one nostril around through the septal opening and out through the other nostril. It was found that the tubes irritated the columella and had to be supplanted with a bridge in the front. P. F. Kazanjian's operative procedure is a good approach as it obviates the repeated procedures when the tubes are used, although it requires considerably more surgical removal of the tissue of the vomer.

A transpalatine approach has been advocated by Blair and Ruddy[4] and recently Wright, Shambaugh and Green[5] described a transantral approach, Wilkerson and Cayce[6] advocated the use of an electrically driven burr. Any or all of these procedures are adequate in selected cases. The important factor in the proper repair is careful postoperative treatment.

4. Ruddy, L. W.: Archives of Otolaryngology, 41:432 (June 1945).
5. Wright, W. K., Shambaugh, G. E., and Green, Lois: Annals of Oto-Rhino-Laryngology, 56:120 (March 1947).
6. Wilkerson, W. W., and Cayce, L. F.: *Op. cit*, reference 3.

The bilateral case which I am reporting has been followed for eleven years with necessity of opening the occlusion several times. At present the patient has relatively normal nasal respiration although he has developed a high arch palate, but normal dental structures. There are no apparent hearing difficulties. The unilateral cases were followed for a short time and seemed adequate in nasal respiration.

CASE ONE

Male, first admission at 19 months, with nasal obstruction since birth. He has had chronic nasal discharge. On several occasions he has become cyanotic when eating. He could not eat dry foods well, usually choking. Respirations are most labored at night. Examination of nose showed considerable mucus in each naris. The turbinals are swollen, but appear smaller than normal. A catheter can be passed into each naris but it does not enter the nasopharynx. X-ray of lateral view of upper respiratory tract showed an interruption in the nasopharyngeal air column at the soft palate. Following injection of lipiodol into the nose, none of the lipiodol came down into the nasopharynx. Another film was taken following injection of lipiodol into the pharynx through the mouth with the patient in the supine position. A thin film of lipiodol outlines a little of the nasopharynx which may communicate with the posterior nasal cavity. The parents did not desire treatment at the time Second admission was at the age of 4½ years. Digital examination of the nasopharynx revealed a tough membraneous closure of both nasal choanae. This membrane was punctured and enlarged on either side. A half inch vaseline gauze strip was passed through right naris and brought around posteriorly into the left naris, the two ends being tied in front of the columella—this serving to keep the opening patent. The vaseline gauze was kept in place for six days at which time patient developed a right middle ear infection. Myringotomy was performed and the ear drained for some time but eventually it healed.

CASE TWO

Male, first admission at 7 weeks, with difficulty in feeding; respiratory difficulty, nasal discharge, failure to gain weight. Following admission, when obstruction of right nostril was found, it was felt that the symptoms could be attributed to the blocking of the right nostril. The baby had only one-half as much as normal breathing space, had not learned to breathe through its mouth, and could not breathe and feed at the same time. The course pursued was that of feeding the infant through proper technic to such time as he was better able to breathe through his mouth. Under anesthesia a small urethral catheter was inserted into the right nostril and directed to the nasopharynx. A membraneous obstruction was felt. With a Freer elevator the membrane was opened about an eighth of an inch. *Diagnosis:* choanal atresia, right side.

No operation was performed until a year later

when (under ether anesthesia) a catheter was passed into the throat through the left naris. This could not be passed through the right. Obstruction in right naris was broken through with a Freer elevator. The opening was enlarged with a curette and rasp and biting forceps. The membraneous and bony obstruction was removed. Right choana then appeared to be about ¾ of a centimeter in diameter. A rubber catheter was passed through the right naris into the pharynx and back out through the left nostril; the anterior ends were secured by taping with adhesive. The catheter was kept in place for a week and on discharge, right naris was patent.

A month later the baby was admitted because the catheter could not be passed through the right naris. A number 12 french catheter was introduced and left in place. Two days later, a thick, purulent discharge came from the right nostril. Larger catheters were introduced successfully. The discharge continued. After two weeks, the right choana seemed patent but there was a synechia between the posterior part of the right inferior turbinal and the septum. (Penicillin was given during hospitalization.) The adhesion in the right nostril was separated and packed with vaseline gauze. The packing was removed in five days and a Penrose rubber drain inserted through right nostril.

CASE THREE

Male, first admission at two months, because of difficulty in breathing through the nose since birth. The child had been delivered at a normal labor without forceps but immediately after birth, he was unable to breathe through the nose. One hour later he was examined by a nose and throat specialist who noted complete nasal obstruction on both sides. A catheter was placed through the left nasal fossa after a membraneous obstruction was encountered in the choana. This was left in place for five days. Although he had some nasal respiration, he became a severe feeding problem. It was thought he was swallowing a great deal of air with his feedings because he had severe vomiting after each feeding.

His mother has right sided complete choanal occlusion but otherwise she is perfectly well and there are two normal sisters.

Posterior rhinoscopy, age two months, revealed a complete occlusion of the right side of the choana and a partial occlusion of the left with evidence of healing membrane. Because of the severe feeding difficulty no operative procedure on the choana was done at this time. X-ray examination disclosed pyloric stenosis and a pyloroplasty was performed. Following this, the feeding problem was solved and the patient seemed to be able to breathe fairly well through his mouth and keep up his metabolism. He was re-admitted at the age of 4 years. X-ray examination revealed complete bilateral obstruction of the posterior choana.

Under general anesthesia, the right choana was found to be occluded by a thick bony septum; on the left side, the occlusion was of thin osseus material covered with mucous membrane. The mucous membrane covering the osseous wall was broken down with scissors and enlarged with a curette. A No. 16 french catheter was sutured in place and removed four days later because of some irritation about the outer part of the nose.

Third admission at the age of 7 years. The posterior choana was again found completely occluded. A portion of the posterior end of the septum was removed and a tube was passed through the right side of the nose around through the septal opening and out the left side. These tubes were left in place for three weeks. Since that time the patient has had adequate nasal respiration.

CONCLUSIONS AS TO CHOANAL ATRESIA

1. Early diagnosis of choanal atresia in bilateral cases is relatively easy to make because of the inability of the infant to nurse.
2. Early diagnosis in unilateral cases is not evident unless the problem is kept in mind. Many unilateral cases are treated for "sinus disease" before the condition is recognized.
3. There seems to be a familial association in the condition.
4. Surgical procedures are successful if proper post-operative treatment is instituted.

LARYNGEAL STENOSIS

Congenital narrowing of the larynx is exceedingly rare. Tucker[7] presented a case in which the condition was not recognized until the patient was presented for laryngoscopy. At times it was seen that the laryngeal structures were normal in appearance but exceedingly small. After tracheotomy, the patient was able to breathe comfortably.

The early laryngeal aditus is bounded cranially by the hypobranchial eminence which will become, in later stages, the epiglottis. The arytenoid swellings appear in the anterior wall of the pharynx caudal to the aditus and, by their growth, constrict the caudal part of the opening. Later they become joined to the lateral margins of the epiglottis by the aryepiglottic folds. The laryngeal cartilages develop, during the second month, in the branchial mesoderm surrounding the upper part of the respiratory diverticulum and in the elevations around the aditus. A plate of cartilage also develops in the epiglottis in the fifth month. In the 6 to 7 millimeter embryo appears the first signs of the larynx, the respiratory groove being transformed into the laryngo-tracheal duct, which communicates with the pharynx by a small orifice.

Progressively the larynx develops through the 20 centimeter embryo, or approximately the first half of the sixth month of gestation. From here on there is very little change to be noted except for

7. Tucker, G.: Journal of the American Medical Association, 99:1899 (December 1932).

gradual increase of size of the various structures which by then have the adult form and shape.[8]

For diagnosis in the condition of small glottic lumen or congenital stenosis one should laryngoscope every newborn who gives any signs of laryngeal dyspnea, stridor, or wheezing and indrawing of the supersternal and tip of the sternum. This will enable the operator to examine the larynx and determine its size. If it is 4 millimeters or less in diameter, immediate tracheotomy should be done to enable the child to nurse and have the proper exchange of oxygen and carbon dioxide. No further trauma should be accomplished; the larynx should be allowed to grow normally thereafter. In the two cases to be reported we succeeded in the first instance without interference except for tracheotomy but it took a long time. In the second case we failed with interference and it is not finished yet. It covered a long period and required many operations.

CASE FOUR

This male was admitted to Babies Hospital at 5 months of age. He had seemed normal at birth. At 7 weeks of age, the infant developed a loose cough, which, a week later progressed to a definite "crow". At ten weeks of age he was admitted to a hospital with the diagnosis of laryngeal stridor. X-rays at that time were negative for foreign body. It was necessary to keep him in a croup tent for a considerable portion of the time. Laryngoscopic examination was negative. The child was somewhat improved at time of discharge, but four days later he was admitted to Babies Hospital. The admitting note then was: "Marasmic male infant of 5 months, with marked inspiratory stridor and crow. He lies with head retracted. Weight: 7 pounds, 5 ounces. (Only 5 ounce gain since birth.) There was marked suprasternal retraction, but no infrasternal or intercostal retraction."

Because of the child's poor condition, it was thought advisable to "build him up" before any operative procedures were carried out. The child, however, failed to respond, and was losing weight. On the seventh day, a 3 millimeter bronchoscope was introduced without difficulty. A few minutes after the bronchoscope was removed, marked respiratory difficulty set in; the child became cyanotic. An immediate tracheotomy was done. After a few stormy days, the child began to pck up; vomiting ceased and he began to take his formula well. Respiratory effort was markedly relieved following the tracheotomy. Three months later the tube was removed for 36 hours, and again in August 1934 for one day, but on each occasion had to be replaced because of the recurrence of the respiratory difficulty. In March 1934 the child had otitis media, with drainage from the right ear. In April 1934 a suppurative lymph node was incised and drained. In January 1935 he again had a purulent otitis media. At this time a laryngoscopic examination showed the subglottic lumen to be narrower than normal, and a 4 millimeter bronchoscope could be introduced with comparative ease. On March 25, 1935, the tube was stopped with a rubber plug. The child seemed able to talk more plainly. However, after 24 hours he became hoarse and had a croupy cough; suctioning seemed to give relief from this. After sixteen days of comfort with the tube plugged, it was removed entirely. The child had no subsequent respiratory difficulty; the tracheotomy wound healed rapidly. He was able to exercise vigorously without respiratory embarrassment.

CASE FIVE

This baby girl admitted three hours after birth, dusky and cyanotic. Following delivery, she apparently aspirated some mucus. Respirations were delayed and the cry was feeble. There was marked laryngeal stridor. Aspirations were done by catheter without much change in the condition. Bronchoscopy was unsuccessful. Emergency tracheotomy effected immediate improvement of the child's condition, both respiratory and cardiac. The diagnosis was congenital obstruction of the larynx. The child remained in the hospital from August 1935 to October 1941. During her stay, she had laryngeal dilatations at weekly intervals, up to size 20 french, but she was apparently never able to get enough air through the larynx to warrant removal of the tracheotomy tube. Later she was treated with coremolds which were gradually increased up to size 20 french. She developed some necrosis around the edge of the tracheotomy wound and some infection in the larynx. This treatment was discontinued and an attempt was made to dilate the larynx again with laryngeal dilator. This proved unsuccessful due to infection and scar tissue formation.

In 1940 a Schmieglow operation was performed and a rubber tube fixed in the larynx. This was left in for three months and then removed. Subsequently she had periodic laryngeal dilatations. She was discharged in 1941 and a 30 french dilator was passed into the larynx at that time. In spite of the dilatations, it was found that the larynx would gradually close down so that she has to continue with the tracheotomy tube. Our plan is to do a plastic operation in the larynx.

CONCLUSIONS AS TO LARYNGEAL STENOSIS

1. All children who present laryngeal dyspnea at birth should be laryngoscoped and the larynx studied.

2. If it will not admit a 3 millimeter laryngoscope, the patient should be tracheotomized.

3. This procedure is sufficient to permit the laryngeal growth to "catch up" with the rest of the infant's advance.

8. Soulie, M., and Bardier, F.: Journal francais de l'Anatomie et de la Physiologie, 43:43 (1907).

DERMOID TUMOR

In a report of congenital malformations of the nose and throat, Stupka[9] reports 64 cases of dermoid tumor of the nasopharynx. Females predominate in the incidence of this abnormality. The cause of these tumors is not clear, but it would appear that they begin at a very early period in fetal life.

From a descriptive point of view the principal stages in metazoan embryological development are:

1. Maturation. The processes associated with maturation of the female and male germ cells (gametes) including the reduction (meiotic) division. The mature gametes (ova in the female, spermatozoa in the male) are highly specialized cells which when fully differentiated do not usually live long unless they take part in fertilization.

2. Fertilization. This is the fusion of a female and male gamete which results in the formation of the zygote or fertilized ovum. The zygote, although resulting from the fusion of two highly specialized cells, is regarded as being the most unspecialized (undifferentiated) of all metazoan cells.

3. Cleavage. The zygote soon undergoes repeated subdivision by mitosis so that a number of cells, blastomeres, each much smaller than the ovum itself, is produced.

4. Blastula. The blastomeres, at the end of cleavage, are eventually grouped to form a hollow sphere of cells, the blastula or, in mammals, the blastocyst. Experiments on, and *intravitam* staining of, the blastulae of lower vertebrates, (especially amphibia), have made it possible to delimit the fate of all regions of the blastula and thus to ascertain their potency, i. e., to tell what localized areas become in normal development. The different areas of the blastula can thus be referred to as presumptive organ regions, e.g., one region is presumptive notochord, another presumptive neural plate, etc.

5. Gastrula. The blastula stage is succeeded by the gastrula which results from changes in position and displacements (morphogenetic movements) of the various "presumptive regions" of the blastula. In normal development, gastrulation results in certain surface regions of the blastula becoming invaginated within the blastular cavity to form the endoderm, notochord and mesoderm. The region through which invagination occurs is called the blastopore. The cells which remain on the blastular surface constitute the ectoderm, from which the epidermis and the neural plate are derived, and by their expansion and multiplication they gradually replace the areas of presumptive endoderm, notochord and mesoderm as the latter are invaginated. Gastrulation results in the establishment of the primary germ layers: endoderm, mesoderm and ectoderm. It brings the presumptive organs of the embryo into the positions in which they will undergo their subsequent development.

It appears from these changes that if a cell is broken off in the blastula stage we would get some of the peculiar anomalies such as a portion of a fetus projecting from the mouth of the main fetus (abnormal twinning) but in the later stages of the gastrula group when three layers are definitely established a cell separated in this period would probably develop into a dermoid tumor.

CASE SIX

This is a baby girl, 8 weeks old who gags on feeding. Birth was at term with instruments. She had massive collapse of lung, and pneumothorax diagnosed following x-ray examination of chest. She was in a Davidson bed for eight days. The formula was given from a bottle but baby was unable to take food because of gagging. Examination of the posterior pharynx disclosed a pedunculated mass behind the uvula. It was thought that she had congenital heart disease because, on physical examination, cardiac shift was noted.

The child is well nourished and sleeps quietly without audible respiratory sounds. She breathes with her mouth open. Behind the uvula there is a mass projecting downward, measuring about one by one centimeter. It is covered by a grayish-pink mucous membrane which appears to be fairly smooth although the mass is cryptic. It extends downward into the pharynx. The mass was not visible until baby began to cry. The entire mass was removed without difficulty and the child had an uneventful recovery.

The specimen consists of an irregular piece of tissue measuring 1.6 x 1.7 x 0.8 centimeters. This appears to be composed of two types of tissue: (1) a larger pear-shaped mass, moderately soft, pale buff and covered with smooth epithelium, (2) clustered around the larger end of the pear-shaped mass there are numerous irregular pinkish-gray nodules which suggest the appearance of hypertrophied adenoid tissue.

The tissue is of mixed origins. The surface is formed by epidermis with an irregular keratinized layer. Beneath it is a layer of fibrous tissue resembling dermis and containing many hair follicles, sebaceous glands and a few oil glands. There is a mild inflammatory reaction in some areas with proliferation of capillaries. The central part of the tumor is solid and contains a variety of tissues including several nerves, small areas of embryonal fat, several pieces of cartilage, groups of fibers with elongated nuclei which may be smooth muscle and many small vessels with prominent epithelium. A peculiar round structure the size of one high power field is not identified. This is composed of a mass of multinucleated giant cells separated from each other by thin basophilic membranes which present a honey-comb pattern. With the possible exception of the embryonal fat all the tissues are well differentiated.

Trichrome stain: This emphasizes the abundance of fibrous tissue present. No muscle fibers are seen.

Diagnosis: Teratoma of nasopharynx.

The problems presented in this paper are not common but early recognition of congenital malformations in the upper respiratory tract and prompt surgical repair will often save the infant's life.

9. Stupka, W.: *Die Missbeldungen und Anomalien des Nasenrachenraums.* Page 261. Julien Springer, Vienna (1938).

NEGRO TUBERCULOSIS CONTROL

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Negro tuberculosis morbidity and mortality (with rates considerably higher than among whites) constitute a national rather than a local problem. The differences are even more conspicuous in urban than in rural areas. In cities, the rates vary with the degree of industrialization. Rates are particularly high where heavy industries are concentrated. Here, hygiene, sanitation and slum areas are often associated factors. Newark, N. J., is a vulnerable spot being one of the largest industrial centers in the country for its size. Here we have not only concentration of many industries but also a large Negro population, many living in congested, unsanitary and slum dwellings. The mortality is almost seven times as great among Negroes as among whites; nationally this rate is only three or four times as high. Morbidity is 4.7 times greater.

Our Negro mortality rate exceeds that of any municipality in the state; it stands out as one of the highest in the nation.* Negroes with tuberculosis are far more prone to the hematogenous and lymphatic spread, and begin to show exudative and caseating lesions early, these areas quickly breaking down and cavitating. The disease tends to run a much shorter and fulminating course. Tuberculosis rises earlier and more sharply than among whites and reaches its highest level at an earlier age. The marked difference between mortality and morbidity rates has been attributed ethnologically to the comparatively brief contact of Negroes with the tubercle bacillus in contrast to a resistance developed among whites over centuries. This theory is based on the assumption that the bulwark against infection depends upon the length of time there has been exposure to the disease. In 1947, the mortality rate in the city was 240 among Negroes* as compared with 35 among whites. Tuberculosis morbidity rate was 440 in contrast to 92 in the white population. These statistics are based on a total population of 445,000. The figures are of limited accuracy as they consist only of known cases. These are dependent upon diagnosis made by physicians, clinics and hospitals and do not include those that are unknown or have not been diagnosed.

The gradual increase in Negro population of the city resulted largely from the demand for labor and the requirements of industry. Newark, largest city in New Jersey, ranks eighteenth in the national population. It has many industrial plants and easy access by railway, seaport and by one of the nation's largest airports. Two-thirds of the employment is in industry, transportation and clerical work. These factors and the great demand especially for unskilled labor makes this municipality a magnet for employment. Negroes have resided here for centuries. They were originally employed as domestics, porters and waiters with few entering the industrial field. World War I, with the great demand for man power due to war contracts and the loss of many individuals entering the armed forces, produced a rapid demand for labor. This was followed by an influx of Negroes from the south lured by the higher wages and an opportunity for improved social life. The Negro population almost doubled during that period. After arriving, they sent for the families and friends, and this, plus their increasing birth rate resulted in a rapid multiplication of the Negro population in Newark. There were 17,000 Negro Newarkers in 1920; and by 1930 the figure had reached 39,000! The progressive increase was supplemented by further demands for labor as a result of World War II, though the influx from other areas was not as marked as the first. The following table, derived from information from the Census Bureau highlights the increasing ratio of Negroes in Newark, from 1.7 per cent of the population in 1870 to 11.2 per cent today:

* But in 1948, it dropped to only 200 per 100,000—the lowest in the country for cities of its size.

Year	Total population	Negroes	Negroes per 1000 population
1870	105,059	1,789	17
1880	136,508	3,311	23
1890	181,830	4,141	23
1900	246,070	6,694	23
1910	347,469	9,475	27
1920	414,524	16,977	40
1930	442,337	38,880	87
1940	429,760	45,760	101
1947 (Est'd.)	445,000	50,000	112

Thus, Negroes now represent more than 11 per cent of the city's population. A third of all Newark's Negroes are found in one ward (Third Ward) where they represent 65 per cent of that ward's population.

The rapid influx of Negroes between 1910 and 1930 (the Negro population quadrupled in that period) found the city unprepared to house them. The only available places were dilapidated buildings in congested areas. These structures had long ago passed a state of usefulness because of poor facilities for decent hygiene. Many were without baths, some without toilets and with very poor requisites for personal hygiene The greatest concentration was in the Third Ward and from here there was infiltration into the Seventh and Fourteenth, followed by gradual spread into all other parts of the city. The central congested area (Third Ward) is usually referred to as the slum section of Newark. Overcrowding, malnutrition, poor housing, bad sanitation, poverty and depressed social and economic conditions form the foundation for the spread of tuberculosis. They also account for a higher mortality from the disease. Negroes being more susceptible to tuberculosis than whites, react more strongly to the conditions found in the areas now occupied by the vast majority of them. A survey of the Third Ward, (when Negroes exceeded a third of the population) was conducted in 1938 by the Department of Health. This study revealed poor housing, congestion, substandard sanitation and close association with active cases of tuberculosis. Families were found residing in single rooms, many of which contained no ventilation, in cellars and attics. Carelessness, poor hygiene and subnormal existence were prevalent. At that time 2010 dwellings were carefully inspected and of this number only 7 per cent were found in good hygienic condition. Major repairs were needed in 54 per cent. Dwellings unfit for human habitation numbered 15 per cent. Houses infested with rats, mice and vermin totaled 80 per cent, and sanitary violations were found in 94 per cent. At that time, Dr. Charles V. Craster. Health Officer, advocated a slum clearance program and the conditions were presented to local and state authorities. Similar conditions existed in the adjoining wards. There has been no noticeable improvement in the ten years that have passed since the survey. If anything, existing conditions are worse.

Social and economic disturbances are prime predisposing causes of tuberculosis. Poor dwellings, subnormal mode of living, congestion, overcrowding and malnutrition produce susceptibility for the disease. No other ailment can be considered more closely affiliated with these circumstances which form a basic groundwork for the spread of the infection. Poverty is an important obstacle and is usually associated with poor hygiene and subnormal existence. Such factors also produce rapid contamination of all contacts and the infection spreads rapidly especially where an active case has neither been recognized or treated. The slum areas have many rooming houses. Many flats are occupied by two or more families sharing the same household facilities. More tuberculosis arises from direct than from remote contact and over 70 per cent of cases can be traced to association within the home.

The morbidity rate among Negroes is five times as high as among whites. These statistics are based upon the reporting of cases by private physicians, hospitals and clinics, supplemented by case-finding programs. X-ray surveys with a mobile unit moving about various sections of the city and by stationary units in public buildings, schools and industrial plants have brought to light many unsuspected cases. These programs have been restricted to those over 15 years of age. Among children, tuberculin testing has been conducted in public and parochial schools in addition to the clinics with subsequent x-raying of all positive reactors. What fraction of the results are due to eco-

nomic conditions and how much is the result of racial susceptibility, cannot be differentiated. There has been a gradual but steady decline indicating a drop from 722 in 1931 (as compared with a white morbidity of 171) to 440 in 1947 (as compared to a white morbidity of 92). Prior to adolescence the primary or childhood infection is common with relatively few reinfection or adult types. The younger age groups are more affected than among whites, and the disease reaches its peak at an earlier age. The morbidity statistics must still be considered of limited value as they are dependent upon the accuracy of diagnoses made by physicians and upon the number of cases that can be located by all of our methods of case finding.

Mortality from tuberculosis among infants and in early life results from the primary infection that spreads rapidly and against which there is little or no resistance. With increasing age, there develops a greater resistance and the childhood type is usually confined to the hilar areas. Clinical examination will not locate these cases. A positive tuberculin reaction later followed by the x-ray confirms the diagnosis. These infections usually localize and calcify under ordinary hygienic care, and the primary type must not be considered dangerous. The secondary infection or adult type, resulting from contact with active cases with positive sputa, develops the clinical disease in the vast majority of cases. To locate both the primary and reinfection type, extensive tuberculin testing programs are conducted in schools and clinics. A negative test occurs falsely on rare occasions. The positive reaction often uncovers a source never suspected. X-rays are taken of all positive reactors. Even though the plates may reveal only mild hilar proliferation of calcifications, these children are re-x-rayed every few months for a comparison of the x-rays. The positive reactor of today even without active findings clinically or by x-ray, must be considered a possible case of the future. When a positive case is found, a follow-up of the family and other members of the household is a routine procedure. A review of *deaths among children for the last six years reveals that 70 to 80 per cent occurred among Negroes;* and in 1947 they reached 100 per cent. In 1946, there was a total mortality of 11 in this group, of which 9 were Negroes, but in 1947, every single death from tuberculosis among children occurred in Negroes!

TUBERCULOSIS DEATHS AMONG NEWARK CHILDREN

Year	White	Negro
1931	7	21
1932	9	13
1933	17	16
1934	7	10
1935	8	14
1936	1	16
1937	8	12
1938	4	16
1939	1	10
1940	4	13
1941	5	12
1942	7	5
1943	2	8
1944	2	4
1945	1	9
1946	2	9
1947	0	7

Beginning at age 15, Negro tuberculosis morbidity and mortality begins to rise sharply. The peak is reached between 25 and 34 but the level continues high to age 44, after which there is a gradual decline. The elevation begins at puberty and rises and maintains its height during adult life. The disease takes its greatest toll when family support is most essential and during the period of life of the greatest industrial activity. The loss is suffered not only by the household, but by the entire community. In this group, the reinfection type of the disease is prevalent and will lead to fatal results unless medical attention is given. Even with the medical and hospital care in the recognized case, the death rate is very high. This is also the cycle during which the greatest degree of contamination exists resulting in spreading the infection to members of the family, to associates and to fellow employees.

PLAN OF CONTROL

The ideal mode of control would be to x-ray the entire population. Even this would not be conclusive as a negative x-ray on one occasion does not guarantee no subsequent infection in the future followed by active disease. Attempts are made to x-ray as many as possible. Recommendations have been made to all hospitals to x-ray every admission and to conduct a screening program on all clinic cases. This procedure has been followed for some time at the Newark City Dispensary, where all admissions, (regardless of complaints or

diagnoses) receive a routine chest x-ray. In 1947, for instance, 37,202 plates were taken. During the past year a mobile unit supplied by the State Department of Health was utilized over a period of three weeks. This unit was placed in various sections of the city. The sites selected were those of greatest congestion which past experience revealed as the locations of the largest number of reported cases. During this drive, 9916 persons (all over the age of 15) were x-rayed. Results showed 396 suspicious cases of tuberculosis. After further study, 118 were considered minimal lesions, 66 moderately advanced and 11 far advanced. They also revealed 15 cases of pleural pathology, 22 of diaphragmatic discrepancies, 122 abnormalities of the spine and ribs and 345 cases of cardiovascular discrepancies. Stationary units have been set up in various industrial plants and in public schools where thousands have been x-rayed. These programs are still in progress. Although control must largely be in the hands of public health authorities, private agencies do render a cooperative service and assist in the wide radiographic plans. Districts covered in the school program included all the heavily congested Negro areas. The Board of Education follows a routine of x-raying all school teachers and all students with a positive tuberculin reaction. The requisite of a negative chest film for all food handlers and domestics employed in Newark has been a regular requirement for many years. The x-ray forms the most essential method in locating active and suspicious cases and is the prime mode of control. Not only can unsuspected cases be located by this method, but also incipient ones where no clinical signs can be detected.

The case finding program in children consists of tuberculin testing and has been a regular procedure in our clinics. Patch testing is performed in all public and parochial schools. If a positive reaction occurs, x-rays of the lungs are taken. The procedure does not terminate here, but is followed up by the x-raying of all members of the family and contacts.

Active and suspicious cases are referred to their private physicians or to specialized clinics. The Health Department conducts eleven clinics weekly in the main building and this is supplemented by five outlying clinics covering the city. The outlying clinics are located in congested neighborhoods for easier access to ambulatory patients and to exposed cases. Most of the general hospitals in Newark have clinics devoted to the diagnosis of chest diseases.

Follow-up is performed by field nurses under the direction of a field supervisor. All nurses are registered and have specialized training in tuberculosis. They see that proper medical attention is secured and maintained for the patient. They cooperate with the attending physician and see that his directions are carried out. They ascertain the possible source of infection and try to remedy the conditions that may have brought about the infection. They advise the patient and the family as to the communicability of tuberculosis and educate them in order to protect contacts and the public. When suitable they advise sanatorium care and see that the patient is regularly examined and x-rayed by his physician or in a clinic. They advise against the use of common dishes, linens and utensils, recommend proper means of dusting and sweeping, and see that a separate room is maintained by the patient with plenty of room, fresh air and sunlight. They enforce the examination and x-raying of all members of the family and contacts. The patients are visited as frequently as the case requires. They visit not only active and suspicious cases but follow-up on all patients after discharge from a sanatorium.

Prompt treatment of active cases and isolation of these patients to prevent further spread of tuberculosis is important. Hospitalization will best accomplish this purpose. The City Hospital is the only institution that will accept and treat open cases. The County Sanatorium (Essex County) and the State (Glen Gardner) accept all patients suitable for treatment, in spite of the fact that many are incurable with practically no chance for recovery or recuperation. Active cases among children are sent to the Isolation Hospital, most of these cases being of primary forms with few adult type. At all institutions, collapse therapy is used where advisable and when this procedure and general treatment fail, surgery is performed. Where pneumothorax therapy has been given and the patient discharged, refills are given at the Health Department, or in clinics of several of the hospitals in the city.

At times active patients are encountered who obstinately refuse to comply with advice and

instructions given by physicians and field nurses. These cases constitute a menace to control and form carriers that promiscuously spread the disease. They neither cooperate, nor will they apply for hospital or sanatorium care. Where the sputum is positive, forcible removal is urgent. These cases are presented before a Judge of the Court of Common Pleas and are committed to a sanatorium where they must reside as long as they are in a communicable or infectious state. There is now pending in the Legislature a bill * (Assembly No. 458) to quarantine any person afflicted with tuberculosis confirmed "by x-ray or the presence of tubercule bacilli in the sputum". This would give the local Health Officer the authority to placard the premises of an active case as long as that person is dangerous, and release from the quarantine could only come on the recommendation of the local Health Officer or by admission to a tuberculosis hospital.

Although it can be argued that there can be no tuberculosis without the presence of tubercle bacilli, the disease does breed in poverty and spreads quickly under such circumstances. Poor housing, living in cellars and attics, overcrowding, low economy and deficient sanitation must be eliminated in a control program. Ordinances must be passed and strictly enforced regulating the conditions of dwellings and tenements. Proper sanitation with cleanliness, sunlight and fresh air will have more effect than all the educational programs instituted. Old type and dilapidated houses should be demolished. Homes and buildings that can be rehabilitated should have plenty of windows providing good lighting and ventilation. Slum clearance must take place. There should be no leniency with owners who will not comply with the sanitary code, who refuse to alter and improve existing conditions. Many buildings will have to be replaced with new structures. These new houses or apartments, in addition to meeting all hygienic requirements, should have rentals within the means of the average resident. The congested and squalid slums are a disgrace to the city and a menace to the public. These conditions have been recognized by the city authorities for years and the Mayor has appealed for federal funds. The Taft-Ellender-Wagner bill would have accomplished this. This problem has been publicized as a "civic cancer" with a living standard far below normal.

Public education must be considered as highly important in any antituberculosis campaign. Unfortunately those who need advice and guidance most are the most difficult to reach. Pamphlets highlighting preventive measures are distributed by the thousands through the Health Department and cooperating agencies. They are presented to school children for their parents and placed in prominent locations throughout the city. The press has cooperated wholeheartedly with frequent articles and during x-ray campaigns publicized the time and place where the mobile unit operated. At various health exhibits, posters and literature are distributed and visual placards and x-rays are used for demonstrations. Members of the clergy are consulted from time to time and advised to stress prophylaxis and many preachers have used their pulpits with good results. Lectures are regularly given by physicians and nurses of the Health Department to both professional and lay groups. The radio has been utilized from time to time for broadcasting various phases of tuberculosis. Motion pictures have been shown in public buildings and before audiences listening to lectures on the subject At homes of active and suspicious cases, literature is left by the nursing staff in addition to discussing the family problems. Courses on tuberculosis are given by members of the staff to student nurses of a number of hospitals in the city.

Industry has been over-emphasized as an etiologic factor. Most Negroes not employed as domestics are doing laboring work in various industries and factories. Poorly ventilated workrooms, dusty trades and strong chemical fumes can cause pulmonary irritation, which may produce a lowered resistance for infection. These conditions in the presence of a fellow-worker with active tuberculosis can constitute a major hazard. In recent years, the risk has been reduced to a minimum by the introduction of mechanical devices such as suction machines, blower sys-

* This bill failed of passage.

tems and wearing of facial masks. Industrial hygiene has improved factory conditions in the last generation. The State Department of Labor and the Division of Industrial Hygiene by careful and critical supervision have improved working facilities. Many plants now have their applicants for employment x-rayed and take periodical routine radiographs to note any lung pathology. Where any evidence of silicosis or fibrosis appears, the employee is transferred at once to some other type of work.

Rehabilitation of the arrested case often becomes a major issue. Discharged from sanatorium or private care with an inactive or healed lesion, he is usually in a depressed condition mentally and physically. His general standard of health has been reduced and his prolonged treatment can leave an emotional disturbance. Often he is unable to return to his former employment. Many industries will not employ him as under existing compensation laws the employer feels that he may re-activate and the factory or corporation will be held compensable for his entire condition. Rehabilitation must be instituted while the patient is still in the sanatorium. He must be trained in some work that will offer a livelihood and not tax his physical reserve. This future occupation should also be under ideal conditions. This can be accomplished only by a social worker trained in the field who will follow-up his activity until there has been not only a physical and mental, but also a social and economic recovery.

SUMMARY

The specific aim of this paper is to create an understanding of the Negro tuberculosis problem in Newark, and to provide a plan for improvement and possible eradication. We are looking forward to the time when a specific antibiotic may be found that will destroy the tubercle bacillus. When and if that occurs, our only obstacle will be to locate and treat the active case. Until that time we are confronted with a plan of control. The following is suggested:

1. Discovery of new cases by x-ray programs extensively conducted and by tuberculin testing of children.
2. Diagnosis of active and suspicious cases.
3. Treatment and isolation of all active cases.
4. Improvement of social economic conditions and wiping out of all slum areas.
5. Health education.
6. Rehabilitation of the arrested case.

The recently completed 1948 report shows that Newark has the lowest mortality rate among Negroes in the country. The 1948 rate is only 20 per 10,000 population.

18 Waverly Avenue

CIRCULATORY DEPRESSION IN ANESTHESIA

Methedrine prevents circulatory depression after spinal anesthesia more effectively than ephedrine, or pitressin. In a study of the vascular reponses in 2500 patients anesthetized with intraspinal procaine or pontocaine, Dripps and Deming found that without pressor drugs blood pressure was decreased, especially during deep anesthesia, in elderly persons, and in patients with high initial pressures. Methedrine is injected into the deep muscles of the back at the time of lumbar puncture. A dose of 20 mg. begins to act in three minutes.—*Surg., Gynec. and Obst. 83:312.*

SALICYLATE TOXICITY

Gastro-intestinal symptoms of salicylate therapy originate in cerebral centers rather than in the alimentary tract; nausea occurs as often after intravenous as after oral dosage. Comparing plasma and urinary salicyl before and after sodium bicarbonate, Caravati and Cosgrove, found that alkalis reduce the blood level of salicylates by increasing urinary excretion. No salicylates were found in the gastric secretions during salicylism, and no mucosal abnormalities detected by gastroscopic examination.—*Ann. Int. Med. 24:638.*

RURAL HEALTH IN NEW JERSEY *

Daniel Bergsma, M.D., State Commissioner of Health, Trenton, N. J.

In a democracy it is preferable that local health units have the direct contacts with the people and should render them the requisite direct public health services. The local health department and the services of its personnel belong to the local citizens, who should come to think of "our health department"; "our health officer" and "our public health nurse".

The six basic functions for a local health department are:

1. *Vital Statistics* — including the acceptance, verification, duplication and filing of birth, marriage and death certificates.

2. *Laboratories*—including the performance of simple tests done in large numbers and special tests requiring speedy results.

3. *Environmental Sanitation* — including inspection, instruction about, and correction of, defects in private and public water supplies and sewage disposal systems, food and drug control, and insect and rodent control.

4. *Communicable Diseases*—including the reporting of disease, consultation for early diagnosis, isolation, quarantine, immunization programs and investigation of spread of disease.

5. *Maternal, Child and Adult Health*—including maintenance of present health and promotion of better physical and mental health through better nutrition, better physical, mental and social hygiene.

6. *Health Education*—This is fundamental to progress in any health department in a democracy. Water and sewage control can be achieved by education of a few. The control of certain communicable diseases through immunization can be achieved by education of parents only. However, an increase in positive, vibrant health involves education and reeducation of each citizen who is to be benefitted. His participation is vital to success.

The quantity and quality of such local health service and the selection of indices to measure them may be set as guides or minimal standards by the State Department of Health. Expert guidance, consultation and supervision should be provided to the local health departments.

A local health department needs a staff, which, to achieve desired results, must be adequately trained and consist of full-time personnel. This demands adequate salary, tenure of office and pension rights. Different professional groups are necessary. A health officer, a sanitary engineer, or sanitarian, public health nurses, a health educator, laboratory technicians and clerks are all essential.

These professional groups are definitely not needed in the proportion of one of each. For example, a public health nurse can serve about 5,000 citizens (when bedside nursing is not included) but a first-class sanitarian can serve about 20,000 persons. A well-trained health officer can administer a local health department program and supervise a staff to cover 50 to 100 thousand or more citizens.

A well-qualified health officer commands a salary greater than any average group of 2500 citizens could afford to pay. Indeed, a well-qualified health officer, interested in his profession would refuse such an assignment since so small a population group would not provide him with enough or sufficiently important professional problems to interest him.

There is real economy in providing a well-trained health officer for every 50 to 100 thousand population, as compared to employing 25 or 50 less well-trained persons. A well-trained, well-balanced staff yields high quality and adequate service at a minimum per capita cost.

A full-time, qualified staff including a health officer, a sanitary engineer, a sanitarian, a health educator, a supervisor and nine public health nurses, together with necessary laboratory technicians and clerks, represents a minimum, balanced and economical corps of public health personnel. They can effectively serve about 50,000 citizens.

These services could be imposed by centralized decisions, planning and specifications. State employed personnel could carry out prescribed programs with little or no local control and with the whole cost borne by the state. I do not favor such a plan.

I prefer and recommend the decentralized approach and I believe it is preferred by every New Jersey citizen. It applies the home-rule principle and represents democracy in action.

* Read before the Woman's Auxiliary to The Medical Society of New Jersey at Trenton, N. J., June 7, 1948.

This plan calls for competent *leadership* by a strong state health department, including the setting of guides and standards for quantity and quality of local health service performance; provision of expert consultative and technical services in the special fields of epidemiology, statistics, engineering and laboratory procedures. The less wealthy or rural areas may need some financial assistance.

Under this recommended plan direct public health services would be provided to citizens by their own full-time, properly trained local health department staff, who would be locally employed and who would be a part of the local citizenry. The population served would have a recognized financial investment in their health department and they would have local representation and control. Experience has clearly demonstrated the fact that under such a plan constructive cooperation from the citizens served can be obtained.

New Jersey is composed of 566 local municipalities. Of these, 333 contain fewer than 2500 citizens each. Of these, 129 have fewer than 1000 population and ten boroughs each have fewer than 80 inhabitants. This means that 60 per cent (333 of our municipalities individually) need less than one-half of a public health nurse and less than one-tenth of a sanitarian. Not one of these municipalities individually needs or can afford a full-time health officer.

It might be presumed that the remaining 233 municipalities are all of good size and suitable units for conducting, on a single municipal basis, a modern, efficient local health department with a well-rounded, well-balanced, well-trained, full-time health staff. Unfortunately, this is not so. Actually 536, or almost 95 per cent, have fewer than 25,000 persons. By modern public health standards, municipalities with such small population totals cannot, individually, operate a well-balanced, efficient and economical local health department. Most authorities accept the figure of 50,000 population as the absolute minimum for economical local health department activities.

New Jersey has only thirteen cities with populations of 50,000 or more. Most of these are in northeastern New Jersey. Our rural counties have scores of local municipalities containing only a few hundred people. Such municipalities cannot and do not provide themselves individually with effective, modern local health services. There are six cities in New Jersey, each with over one hundred thousand population. These six cities contain almost 30 per cent of the total state population. Only 51 per cent of New Jersey's citizens now have the benefits of the services of a full-time licensed health officer; 14 per cent have part-time services and 35 per cent of New Jersey's citizens have no licensed health officer. Seventy-two per cent of our New Jersey municipalities (406 of them), now have no licensed health officer. This is a serious condition and one that should be remedied soon.

The need is clear. A legally recognized agency is required to enable local municipalities to provide self-administered health services throughout a consolidated inter-municipal jurisdiction on a basis comparable to that now used for highway construction, welfare or public education. We do not desire and cannot afford one room schools, neither do we want, nor can we afford, horse and buggy local health departments. However, there are certain legal and administrative impediments which tend to prevent local inter-municipal, cooperative efforts to provide jointly, on a permanent basis, for adequate, effective, modern local health services in any given rural area.

Authority for local boards of health to employ jointly the same health officer or inspector has existed in New Jersey for about thirty-five years. The advantages of such joint employment are obvious but the disadvantages, under existing laws, have precluded its widespread application. Under the law each board of health continues to exist as an independent agent with its own ordinances, budgets, policy, etc. The officer who may be employed actually becomes servant to many masters and receives his pay from each of the boards of health concerned and he, in turn, must report to each board separately. He must enforce different health ordinances in various parts of his jurisdiction. Efforts to obtain funds for the budget from numerous sources divert time and energy which should be applied to rendering local public health services. The system in practice offers no tenure of office and no pension rights.

Since 1938 it has been possible in New Jersey to form an association known as a Re-

gional Health Commission. Such a Commission is made up of representatives of local boards of health and is intended to render public health services to the component boards of health to the extent and kind agreed upon by the Commission and the boards. This law has some advantages but unfortunately retains most of the serious administrative handicaps. For example, under this plan each local board of health is retained with its own ordinances and budgets. Each local board retains its legal identity in such a manner that a health officer employed by the Commission must, in turn, be appointed by each of the local boards concerned in order to give him any official status in the respective municipalities. No tenure of office can be provided and no pension system is applicable.

A very great need exists in New Jersey, especially in the rural portion, to permit construction of an agency of real stability; one which can be guided by representative local citizens; one which is empowered to employ a well-rounded, well-balanced, well-trained and full-time health staff, with provisions for tenure of office after demonstrated. competent service and with acceptable pension rights; one with adequate authority in all local health matters throughout the inter-municipal area under its jurisdiction; one with authority to conduct an effective, modern local public health program and to provide itself with necessary facilities to carry out its proper functions. Most essential is a single source for the funds for that portion of its program which is to be paid for locally.

Until such time as the rural communities of our state are adequately provided with local public health services, comparable to that now available to the citizens of the better organized cities, the rates of tuberculosis and other health indices will continue higher in the rural areas. Nor is such a program prohibitive on a cost basis. It would surprise many rural citizens to study the facts and to learn how much of their money is now being spent for various local public health purposes. They might very well also be surprised to learn that a significant portion of their monies actually spent for so-called local health purposes is not presently yielding effective service.

Jerseymen, who live in rural areas, have the same need for and the same right to local public health services designed to prevent disease and to enhance positive health as do their fellow citizens in the urban portions of our state. I urge each of you to give of your best talents, time and energy to provide equal opportunity for freedom from disease and for the enjoyment of positive health for every Jerseyman.

The State Department of Health

INTEGRATION OF PANAMA CANAL ZONE HOSPITALS

Secretary of Defense Forrestal has approved integration of National Military Establishment hospital and medical services in the Panama Canal Zone area.

Approval was given on recommendation of the committee on medical and hospital services of the armed forces, of which Dr. Paul R. Hawley, former chief medical officer of the Veterans Administration, is chairman.

Under the integrated program, hospitalization of the personnel of all three military services is assigned to the navy on the Atlantic side of the zone and to the army on the Pacific side.

SULFONAMIDE SENSITIZATION

If a sulfonamide must be prescribed for a second time, a different compound should be used if reactions appeared during the original sulfonamide treatment. After 78 patients had fever, dermatitis, or conjunctivitis during sulfonamide therapy, 69 per cent, or 48 subsequently given the same drug were similarly affected. Dowling and associates observed that only 17 per cent of patients from the original group had harmful reactions to a different sulfonamide. Of 9 patients reacting adversely to both of two courses of treatment, 5 had toxic manifestations when the same drug was given a third time. Toxic response on treatment bore no relation to the original number of reactions.—*Ann. Int. Med. 24:629.*

ACRIDINE-SULFONAMIDE THERAPY OF TRICHOMONAS VAGINITIS

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Trichomonas vaginalis infection is one of the commonest disorders confronting the obstetrician, the general practitioner and the gynecologist; it is probably a more common parasite than is generally recognized. The multiplicity of therapeutic agents recommended for trichomoniasis reflects our failure to find a true trichomonocidal agent.

Tussel lists a large number of drugs used both as trichomonocidal and palliative agents. Karnaky, Owen, Brady, Reed, Schuman et al., have reported as high as 98 per cent clinical cures with the use of various trichomonocidal agents and several complicated methods of treatment. These figures correspond with the findings in my own somewhat limited series of 44 cases. However, although our results were gratifying clinically (with a total of 97.8 per cent symptomatic cures) 41 per cent of the patients were completely symptom free, yet still harbored a rare trichomonad on bacteriologic follow-up several weeks after final treatment, and 57 per cent were absolutely cured both symptomatically and bacteriologically. These results are about as good as can be expected. It seems likely that the high ratio of "cures" (figures in the 80 and 90 per cent brackets) reported by many authors, represent clinical improvement rather than bacteriologic results.

In the treatment of 44 patients here reported, a vaginal cream containing 2 per cent allantoin, 15 per cent sulfanilamide and 9-aminoacridine hydrochloride (1 to 500) in a water miscible base* was used.

Laboratory and clinical evidence testify to the effectiveness of aminoacridine as a bacteriostatic and bactericidal agent. A study of mono-aminoacridines by Rubbo et al.,[1] showed 5-aminoacridine to be the most active of the aminoacridines. Unger and Robinson[2] found 9-aminoacridine to be active against gram positive cocci and spore bearing anaerobes as well as gram positive and negative bacilli. It had no effect on pyocyaneus nor were toxins neutralized *in vitro*. Bactericidal effects of 9-aminoacridine in high dilutions, particularly against anaerobic organisms was reported by Goetchius and Lawrence.[3]

Gross and histologic effects of a few acridine compounds upon the rabbit brain were recorded by Russell and Falconer[4] who stated: "5-aminoacridine hydrochloride† caused no appreciable damage to brain tissue when applied in a concentration of 1:1000 in buffered isotonic saline at a pH 6.2. It was highly destructive in powdered form."

Clinically, 9-aminoacridine has been used as a skin sterilizing agent,[5] and in wound dressings.[6, 7]

McIntosh and Selbie[8] did extensive work on 5-aminoacridine as a chemotherapeutic agent in anaerobic wound infections. They recommended ointments and mixtures of sulfathiazole and acridine antiseptic in a ratio of a hundred parts of the sulfa drug to one part of the acridine.

As a surgical antiseptic, Spotts[9] found a combination of allantoin, sulfanilamide and 9-aminoacridine in a water soluble base very effective in the treatment of infected wounds. He found it safe, non-staining and soothing.

Treatment of trichomoniasis with a vaginal cream containing allantoin 2 per cent sulfanilamide 15 per cent and 9-aminoacridine hydrochloride (1 to 500) in a water miscible base was simple and of no great trouble to the physician or the patient. Daily insertions vaginally of the allantoin, sulfanilamide, and 9-aminoacridine cream were ordered, preferably at bedtime, followed by weak vinegar douches the next morning. This was continued even during the menstrual cycle. Weekly check-ups were made both clinically and bacteriologically. Treatments continued for three months,

*Allantomide Vaginal Cream with 9-Aminoacridine, Supplied by the Medical Research Department, The National Drug Company, Philadelphia 44, Pa.

† In the British system, 5-aminoacridine is the equivalent of 9-aminoacridine in the German system which is used in the United States.

1. Rubbo, S. D., Albert, A., and Maxwell, M.: British Journal of Experimental Pathology, 2:69 (April 1942).
2. Unger, J. and Robinson, F. A.: Journal of Pharmacology and Experimental Therapy, 80:217 (March 1944).
3. Goetchius, G. R. and Lawrence, C. A.: Journal of Laboratory and Clinical Medicine, 29:1177 (Nov. 1944).
4. Russell, D. S. and Falconer, M. A.: Lancet, 1:580 (May 8, 1943).
5. Bonney, V. and Allen, H. S.: British Medical Journal, 2:210 (Aug. 1, 1944).
6. Brownlee, G. and Tonkins, I. M.: Quarterly Journal of Pharmacy and Pharmacology, 16:73 (May 1943).
7. Peate, H. H. G.: Lancet, 2:238 (Aug. 19, 1944).
8. McIntosh, J. and Selbie, F. R.: Lancet, 1:793 (June 26, 1943).
9. Spotts, S. Dale: American Journal of Surgery, 74:183 (Aug. 1947).

at which time the patients were discharged, but returned monthly for three months for a check-up as to symptoms and for bacteriological examination.

Most of the patients were symptom free in three to seven days and remained symptom free throughout the course of treatment and for the three months follow-up period. An analysis of the 44 patients follows:

ANALYSIS OF RESULTS: 44 TRICHOMONAS PATIENTS TREATED WITH COMBINED SULFONAMIDE-ACRIDINE CREAM

	Patients	*Per Cent*
Patients with positive bacteriologic evidence of trichomonas:		
Before treatment	44	100%
3 months after treatment terminated	18	41%
Patients with clinical symptoms of trichomonas:		
Before treatment	44	100%
3 months after treatment terminated	1	2%
Symptom free (elapsed time after initial treatment):		
Three days	3	
Four days	16	
Five days	11	
Six days	11	
Seven days	2	
No symptomatic relief	1	
Total	44	

SUMMARY

1. A series of 44 female patients with clinical and bacteriologic evidences of trichomonas vaginitis was treated with allantoin 2 per cent, sulfanilamide 15 per cent, 9-aminoacridine (1 to 500) in a water miscible acid cream base.

2. Of these patients, 97.8 per cent were symptomatically cured.

3. Trichomonical cures and symptomatic cures were found in 25 cases or 57 per cent.

4. Non-trichomonical cures but positive symptomatic cures were observed in 18 cases or 41 per cent.

5. Failure occurred in only one case.

6. Results may be considered satisfactory and the method effective. Alleviation of symptoms was rapid and the method of treatment relatively simple.

517 Roseville Avenue

ENGLAND'S NATIONAL HEALTH ACT

A survey of the first six months of Britain's National Health Act has been made by the London correspondent of the American Medical Association. He reports that since the act has been in effect, doctors' offices have been "overcrowed with people, many of whom have little or nothing the matter. What will happen if we suffer an epidemic is a nightmare for the conscientious physician". The correspondent adds that:

"The demands for drugs and apparatus is excessive. For the first three months of the service the national bill for eye testing and spectacles amounted to nearly $4,000,000, for drugs $7,600,000 and for dentists, $4,900,000. These figures do not include the cost of treatment and appliances provided through the hospitals.

"An abuse of the Health Service has occurred, the extent of which cannot be stated because of the secrecy of the practice. A woman obtains a prescription from a doctor for which she has little if any need. Perhaps she shams illness. She takes the prescription to a pharmacist and trades the prescription for cosmetics or other things which he sells. The pharmacist has no difficulty in getting payment for the prescription, as he returns it with those that he has dispensed. Both score. The woman obtains her cosmetics for nothing and the pharmacist makes an increased profit on this sale of cosmetics."

The reporter believes that the medical profession does not reap any reasonable benefits from the act "because of the enormous waste involved—waste of time and material".

"A crowning bit of extravagance may be mentioned," the reporter continues, "Aliens who come to this country are entitled to free medical attention at the public expense for two months".

STATE ACTIVITIES

BOARD OF TRUSTEES

JANUARY 16, 1949

The Board of Trustees met in regular session at Trenton, on January 16, 1949. An abstract of the actions follows:

1. The Medical Education Committee reported the system of appointing interns, (set up on a national basis two years ago), needs revision. There is a serious shortage of interns in New Jersey and the Committee recommended that teaching hospitals be requested to forego the appointment of interns during this emergency and release the men to smaller or outlying hospitals.

2. The Board appointed Dr. Londrigan, Dr. Johnsen and Dr. Decker to consult with Dr. Dayton Edwards, Chairman of the Committee on Interns of the American Association of Medical Schools; and after the conference to frame a resolution on the whole subject of intern qualifications, methods of appointment and other aspects dealing with the general practice of medicine for presentation to the 1949 A.M.A. meeting, with the specific request that the resolution be referred to a special committee of the A.M.A. rather than to a bureau or council. The Board also empowered the Committee to name additional members as needed.

3. The Board complimented the New Jersey Delegates to the interim session of the A.M.A. on the excellence of their report, which upon motion was received.

4. The Board endorsed in principle the allotment of funds to our Delegates to the A.M.A. for entertainment purposes at the June 1949 meeting in Atlantic City; and referred the matter to the Finance and Budget Committee for consideration in the next budget.

5. The following resolution was unanimously adopted:

Whereas, the House of Delegates of the American Medical Association has unanimously voted to levy an assessment of $25 upon each member of the A. M.A. for the year 1949, and

Whereas, this fund is to be used "for a nationwide plan of education on the progress of American medicine . . . . the advantages of the American system in securing a wide distribution of a high quality of medical care" and for the more rapid promotion of voluntary prepayment medical care insurance plans, and

Whereas, the payment of an assessment levied by our national association should be accepted as an obligation against each individual physician, and

Whereas, the Trustees of The Medical Society of New Jersey wholeheartedly support and endorse the action of our national association in raising a fund for this urgently necessary purpose, therefore be it

Resolved by the Board of Trustees of The Medical Society of New Jersey, that it require each component county medical society to place an immediate special educational assessment of $25 upon each member, in the name of the county and State Societies and the American Medical Association, asking each member to accept this assessment as part of his current obligation to the county and State Medical Societies, and be it further

Resolved, that each county medical society instruct its treasurer to collect, report and forward to the Treasurer of The Medical Society of New Jersey the 1949 assessment of the American Medical Association for each member of the county society.

Implementing this resolution, the Board unanimously adopted a motion that a special assessment for educational purposes of $25. per capita be levied against each component society for its membership to meet the assessment levied by the A.M.A.; such assessment to be payable at the same time, and as part of, the regular 1949 assessment.

6. President Hornberger was empowered to name two representatives of the State Society to serve as members of the Board of Directors of the Associated Hospital Service of New York.

7. Upon recommendation of the Advisory Committee to the Woman's Auxiliary, the following were approved:

a. That the Chairman of the Board appoint a committee to draw up an amendment to the By-Laws setting forth the dutles of the Advisory Committee to the Woman's Auxiliary.

b. That the Woman's Auxiliary Rural Health Program be approved in detail.

c. That any new activity of the Woman's Auxiliary pertaining to the policy and program of The Medical Society of New Jersey be sponsored

by the appropriate committee of the State Society; and, after approval by the Board of Trustees, be financed within the limitations of the budget allotted to that particular committee. (This action does not preclude the Auxiliary from suggesting activities in which they might assist the Society.)

d. That the following is a statement of policy of the Auxiliary: An important function of the Woman's Auxiliary is to act as hostess at the annual meeting of the State Society and to the Auxiliary of the A.M.A. when the A.M.A. meets in New Jersey, and no other activities should detract from this function.

8. The various recommendations contained in the Report of the Welfare Committee, with the exception of Child Health recommendation No. 3, were approved. (See page 94.) The latter, a resolution about medical care for low income families, was approved in principle and its implementation left to the committees concerned.

9. The Board instructed the Special Committee on the General Practitioner's Award for 1949 to canvass the county societies for nominations; to purchase the award medals on a year-to-year basis when, as and if needed, and directed that the award be made annually if, in the judgment of the committee, there is a suitable candidate.

10. The following report and recommendations of the Special Committee on Medical-Legal Testimony was approved:

a. The abuse of medical testimony cannot be ameliorated under the present Workmen's Compensation Law.

b. A study should be made and a change recommended in the Workmen's Compensation Law.

c. That the present Compensation Committee of the State Society investigate these abuses and request that the Bar Association name a committee to cooperate with our Compensation Committee in formulating these changes.

11. A request from the Academy of Medicine of Northern New Jersey for a contribution of $500 to assist in meeting their operating and maintenance deficit was referred to the Finance and Budget Committee for consideration in the next budget.

12. In reply to a letter of protest from the Warren County Medical Society regarding policies of the Pennsylvania Licensing Bureau on border-line practitioners, it was directed that the county society be informed that the State Board of Medical Examiners has previously considered this matter and is without power to act.

13. At the direction of the Board, Dr. Butler and Dr. Blaugrund were named as representatives of the Society to serve on a school health advisory committee with two representatives of the N. J. Education Association and a representative of the State Department of Education.

14. "A Public Statement of Official Policy of The Medical Society of New Jersey" was approved. (See page 91.)

15. To investigate the possibilities of an alliance between labor unions, farm organizations and the Society to oppose compulsory health insurance, the Board authorized the appointment of a special committee to meet with these groups in an attempt to arrive at some understanding.

16. A resolution from the Middlesex County Medical Society requesting the Society to offer a cash award for an essay on "The Conduct of a Public Health Week" was disapproved. The Executive Officer was instructed to inform the county society as to what is being done to determine how "Public Health Week" is to be conducted in the future.

17. An amendment to the Medical Practice Act to stop the practice of laboratory medicine by non-medical personnel, submitted by the Subcommittee on Legislation, was referred to counsel for opinion. If in his opinion the amendment is proper, the Legislative Committee will sponsor an amendment in the present Legislature.

18. The Trustees directed the Legislative Committee to sponsor an amendment to the Medical Practice Act, changing the words "$250 for each regular examination" to "$500 for each regular examination".

19. In response to a request from the Executive Committee of the New Jersey Chapter, American Cancer Society, for the privilege of having local meetings in the State Society building, the Trustees directed that the Cancer Society be informed that the building is available to them for meetings of their state group, but it is impossible to permit local groups to meet there.

20. A communication from the American Sociological Association relative to national legislation was referred to the proper subcommittee of the Welfare Committee for study and subsequent report to the Trustees.

A PUBLIC STATEMENT OF OFFICIAL POLICY OF THE MEDICAL SOCIETY OF NEW JERSEY REGARDING NATIONAL COMPULSORY HEALTH INSURANCE

Adopted by the Board of Trustees, January 16, 1949

FOREWORD

The President of the United States, in his "State of the Union" Message to Congress on January 5, 1949, declared that the American people need "a system of prepaid medical insurance which will enable every American to afford good medical care". This has been universally and correctly construed as a recommendation for compulsory health insurance.

It would be impossible to exaggerate the importance of this proposal. If enacted, its success or failure would affect the intimate personal welfare of every citizen, and such a program would have a profound influence upon our entire social order.

Our urgent desire is that this proposal shall receive painstaking study and debate. We hope this debate may be conducted in an objective spirit.

Physicians support the President's purposes but differ with him as to the means and methods of achieving those purposes.

The overwhelming majority of physicians believe that federally operated compulsory health insurance would be a mistake of gigantic proportions. They oppose it because they are convinced it is contrary to the public interest. They and their medical societies recognize an urgent responsibility to interpret these convictions to the public.

The Medical Society of New Jersey, therefore, offers the following general statement in a sincere desire to shed light upon a controverted question:

STATEMENT

The Medical Society of New Jersey emphatically supports the basic purpose of the President of the United States, as expressed in the declaration that the American people need "a system of prepaid medical insurance which will enable every American to afford good medical care".

The Medical Society of New Jersey opposes Federal Compulsory Health Insurance as a means of achieving this purpose, because we believe such a plan is contrary to the public interest.

We recognize that people who have low or moderate incomes need the advantages of cooperative assistance plans to help in paying the costs of modern medical and hospital care. We are seeking to meet this need through non-profit voluntary medical and hospital care plans, operated according to sound insurance principles, under local control, and adapted to the needs of our own citizens. The Medical-Surgical Plan of New Jersey, while only 6 years old, already has a quarter of a million subscribers. This plan will be made available to every family in New Jersey as rapidly as sound enrollment programs can be devised.

Our opposition to federal compulsory health insurance is based upon the following general reasons, each of which will be developed in detail in subsequent statements:

1. *Federal compulsory health insurance is unnecessary.* The need for insurance protection can be met far more economically and with better satisfaction to the patient, by *voluntary* cooperative methods that have already proved their value. It is unnecessary also because there is no crisis in the national health, which, in fact, has never been better.

2. *Federal compulsory health insurance will provide a progressively inferior kind of medical care for the people.* Governmental regulation and control plus the excessive demands of certain kinds of irresponsible patients will gradually crush the incentives and opportunities of physicians to do their best work.

3. *Federal compulsory health insurance will introduce political interference into medical service.* It will violate the private relationship between the patient and the doctor, subordinating professional services to "the three R's" of government operations: rules, regulations, and red tape.

4. *Federal compulsory health insurance will cost the taxpayers additional billions of dollars annually, a major part of it for administration alone.* Hundreds of thousands of government employees will be engaged in accounting, auditing, inspecting and investigating the heretofore private affairs of patients and doctors. The cost of this federal program is estimated at from 4% to 9% of payrolls.

5. *Federal compulsory health insurance will actually deliver less medical care to those who seriously need it.* The demands for "free" medical care, plus the reporting and record keeping burdens inevitably to be placed upon

participating physicians, will allow them less time to care for seriously ill patients.

6. *Federal compulsory health insurance will hamper medical progress.* The incentives and opportunities for physicians to improve their services and to keep abreast of the constant improvements in medical science must inevitably suffer under any federally operated medical plan. Mediocrity will be the rule.

7. *Federal compulsory health insurance may well be the first fatal step toward a completely socialized economy.* It has been just that in nearly every other nation that has travelled down the road to state socialism.

The Medical Society of New Jersey, in company with the American Medical Association approves and supports nearly every other proposal in the projected National Health Program. We have long urged the unification of all existing federal health and medical activities in a Department of National Health, with cabinet rank. We support increased federal aid to states needing such assistance for expanded hospital and health center construction. We favor every federal encouragement, without federal control, to the improvement of local public health services. We support proposals for a National Science Foundation to aid medical research. We favor better maternal and child health programs for needy mothers and children. We endorse universal insurance protection for breadwinners against loss of family income due to non-compensable illness or disability. We favor better school health services.

The Medical Society of New Jersey has taken an active part in promoting many of these objectives within our own state, and we expect to continue to exert a leadership in these and other programs that are truly in the public interest. Most notably we have pioneered in the development of a sound voluntary health insurance plan and a model plan for assuring good medical care for the indigent and low income groups.

We submit that this is a very respectable program which may well occupy our medical talents and our public resources for many years to come. If successfully realized it would abolish the last plausible excuse for such a dubious prescription as federal compulsory health insurance. The Medical Society of New Jersey earnestly invites the participation of every friend of medical progress and every proponent of free enterprise and personal initiative in opposing this proposal, which we consider a disastrous threat to the public welfare.

WELFARE COMMITTEE

DECEMBER 12, 1948

A meeting of the Welfare Committee was held in Trenton, on December 12, 1948. A total of 58 was in attendance.

President Hornberger stressed the importance of unity among the members of the A.M.A. and among the members of the medical profession in general. He asked that conclusions not be hastily drawn relative to the recent action of the A.M.A. House of Delegates as to the purpose of the $3,500,000 fund, but to wait until complete information is at hand.

Dr. Sica, Chairman of the Board of Trustees, presented his recommendations for meeting schedules which he believes will effect more intelligent consideration and vote on the many matters brought up during the year. A copy of these recommendations will be sent to each member with the request that they be studied and discussed at the next session.

Dr. Blaisdell, Chairman of the Subcommittee on Legislation, presented the report of his Committee which was approved. The report contained brief statements on national and state legislation, commercial clinical laboratories, and a communication from the New Jersey Medical Women's Association calling attention to the restricted appointment of women physicians as commissioned officers. The report did not contain any definite recommendations for consideration and action at this time.

Dr. Murphy, Chairman of the Subcommittee on Medical Practice, presented the report of his Committee, which was approved. The following approved recommendations were referred to the Board of Trustees for consideration and action:

MEDICAL CARE OF THE INDIGENT

For the purpose of this report the following definitions should be recognized:

1. The indigent or relief clients are those per-

sons whose names appear on the relief rolls of the communities.

2. The medically indigent (or low income group) are persons who are otherwise self-supporting but unable from their income to provide themselves with adequate medical care.

3. Medical indigency must be determined at a local level by the government agency paying for the medical care.

Accordingly it is recommended to each county medical society that it:

1. Make an immediate study of all publicly supported medical services in every community in its county to determine:

a. Which communities provide medical service to "relief clients" and to the "medically indigent" through the physician of the patient's choice and on a fee-for-service plan.

b. Which communities provide medical service to "relief clients" or to the "medically indigent" through a salaried physician serving the municipality on a contract or appointment basis.

c. Which communities pay hospital bills for "medically indigent" patients in addition to regular "relief clients".

2. That each county medical society make effort to persuade every community to provide medical service to relief patients by the free choice, fee-for-service plan.

3. That each county society do everything possible to persuade every community to fulfill its responsibility in providing hospital and medical care for medically indigent citizens.

4. That each county society appoint a committee to carry out the survey and plan of action and to represent the county society in all matters of welfare medical service as well as to serve in an advisory relationship to the welfare authorities throughout the county in the administration of these programs.

HOSPITAL RELATIONSHIPS

It is recommended that a joint committee be set up for the "improvement of the care of the patient" to consist of five members each from The Medical Society of New Jersey, the New Jersey Hospital Association, and the State Nurses Association; the presidents of the different groups to be empowered to appoint their representatives each year.

Dr. Blaugrund, Chairman of the Subcommittee on Public Health, presented the report of his Committee which was unanimously approved. The following recommendations and resolutions were individually approved and referred to the Trustees for action:

MATERNAL WELFARE

WHEREAS, a marked reduction in maternal mortality has been accomplished by improved obstetrical care;

AND WHEREAS, a continued low death-rate of women, due to pregnancy; and progress in reducing preventable loss of babies can be accomplished only by insistence that all hospitals accepting responsibility for maternity cases provide facilities for meeting all unusual emergencies connected therewith,

THEREFORE, the Advisory Committee on Maternal Welfare recommends to the Welfare Committee that The Medical Society of New Jersey, through suitable liaison established with the State Licensing Board for Hospitals, request the Board to establish as minimal conditions for the approval of any hospital caring for maternity patients, the following:

1. That each such hospital submit to the Licensing Board for Hospitals annually a report showing:

a. Total number of deliveries.
b. Total number and incidence of all operative deliveries.
c. Total number and incidence of cesarean section.
d. Total maternal deaths.
e. Number maternal deaths following cesarean section.
f. Total stillbirths and deaths of infants under two weeks.

2. That each such hospital maintain a blood-bank or have other arrangements established whereby properly matched blood for transfusion may be promptly available in obstetric emergencies.

3. That each such hospital provide adequate equipment for the special care of premature infants, or establish means whereby such infants may be safely transferred to other hospitals so equipped.

The Medical Society of New Jersey gladly offers the services of especially qualified members to cooperate with the Board in any manner looking to the carrying out of the objectives first stated.

SCHOOL HEALTH

It is proposed that the Consulting Committee to the School Health Program of The Medical Society of New Jersey be continued under a different name; that it be known as the New Jersey State Council for Improvement of School Health Services and that it be composed of appointed representatives, as follows:

The Chairman (to be a member of the School Health Committee of The Medical Society of New Jersey).
Chairman of the Public Health Committee of the Medical Society.
Chairman of the School Health Committee of the Medical Society.
Chairman of the Public Relations Committee of the Medical Society.
Chairman of the Woman's Auxiliary Committee of the Medical Society.
Executive Officer of the Medical Society.

Representatives of the following organizations and agencies:
- State Department of Institutions and Agencies.
- State Department of Education.
- State Department of Health.
- State Dental Society.
- State Nutrition Council.
- State Health Officers Association.
- State Congress of Parents and Teachers.
- State Education Association.
- State Tuberculosis League.
- State Society for Health, Physical Education and Safety.
- State Federation of District Boards of Education.
- School Nurse Committee of the State Organization of Public Health Nurses.
- Woman's Auxiliary to The Medical Society of New Jersey.
- New Jersey Heart Association.
- New Jersey School Physicians Association.

Resolved, that the Advisory Committee on School Health, after due consideration, approves and strongly recommends the appointment of a State Council for Improvement of School Health Services in accordance with the foregoing proposal; that this Council devote it elf to implementation of the four point school health program through coordinating and assisting in the work of similar county councils and local groups interested in this program; that the State Council have no authority to alter the approved four point school health program but may suggest changes or additions to this program for the consideration of the School Health Committee of The Medical Society of New Jersey; that the State Council have no authority to bind any organization represented in its membership to any action taken by the Council; that the chairman of the State Council be appointed by the Chairman of the Committee on School Health of The Medical Society of New Jersey and, shall at all times be a member of that Advisory Committee.

CHILD HEALTH

1. That the problem of the Advisory Committees to the National Foundation for Infantile Paralysis at county and local levels be referred to the existing State Advisory Committee on Poliomyelitis.

2. That Poliomyelitis Advisory Committees contain as a minimum one pediatrician, one orthopedist, one neurologist and one internist, to be selected by the county medical societies.

3. That The Medical Society of New Jersey at this critical time forthwith expand the Medical Service Administration and other medical care plans into a constructive statewide plan for better medical care for all low income families in New Jersey, with particular reference to the needs of children, through joint action of its Officers, Trustees, Welfare Committes, Medical Service Plans, and component county societies, and that such plan, based on the experience gained in the Newark Plan, the Baltimore City Plan, the Maryland State Plan for low income families and similar efforts, be expanded in conference and collaboration with the Governor, the Legislature, the allied health professions, the State Departments of Health, Institutions and Agencies, and other statewide official and non-official agencies interested in the urgent problem of providing good medical care for low income families, with particular reference to the needs of children.

THE TWO-WAY CHANNEL

Dr. Blaugrund emphasized the need for Welfare Committee members to transmit to their county societies a resume of the activities of State committees; such reports to be presented at the county meetings immediately following the sessions of the Welfare and Subcommittees, in an attempt to enlighten county members as to the State Society's programs. He suggested that the matter be given thought and that the Chairman of the Board of Trustees and the Chairman of the Welfare Committee and possibly the Chairmen of the Subcommittees give consideration to solving the problem.

Dr. Bray, Chairman of the Subcommittee on Public Relations, presented the report of his committee which was unanimously approved. The following recommendations were individually approved and referred to the Board of Trustees for action:

(A) That a continuing special committee on "Public Health Week" be established for the following purposes: (1) To assemble and study detailed reports on "Public Health Week" from each county participating in the 1948 observance; (2) To prepare a report on the project of "Public Health Week" with detailed recommendations as to how it should be conducted in the future; and (3) To communicate with each county society which did not carry on a "Public Health Week" program in 1948 in order to stimulate and encourage it to join with all other counties in such a program for 1949.

(B) That the State Society request each county society to designate from two to ten of its members, for early briefing, training and commissioning as speakers before lay groups on compulsory sickness insurance; to arrange one or more briefing sessions; to engage public speaking instructors to aid in preparing speakers for their assignments; that the State and county societies directly solicit

invitations for speakers on this topic from all types of lay organizations, including labor unions and farm groups, and that these speakers then be booked for these assignments directly through their county societies.

(C) That rapid encouragement and expansion of the Medical-Surgical Plan be made through every feasible method.*

* The Committee feels that organized medicine is faced with a dire emergency; that the Medical-Surgical Plan in this state and similar plans elsewhere represent the most important single offset to the drive for compulsory insurance and that every possible method must be exploited to step up the coverage of the people of this state in this program. We suggest that the trustees and administrators of the Hospital Service Plan of New Jersey should be officially and urgently memorialized as to the extreme importance of rapidly expanding the enrollment in the Medical-Surgical Plan for the sake of both plans. This plan is essentially a project of The Medical Society of New Jersey and as such we have an original proprietary interest in its progress. The present situation, in our opinion, justifies our taking every legitimate advantage of this interest and sponsorship.

Miss Margaret B. Allen, president of the New Jersey State Board of Nursing and the New Jersey State Nurses' Association, and Dean of Education at the Orange Memorial Hospital, spoke to the Welfare Committee on "Nursing for the Future" which was based on the Brown Report, a study of the nursing profession.

VINCENT P. BUTLER, M.D.,
Chairman,
Welfare Committee.

CERTIFICATION FOR THE PROSTHETIC AND ORTHOPEDIC APPLIANCE INDUSTRY

Something new has been added to the rising tide of certifying agencies. There is now a special Board which certifies manufacturers and fitters of artificial limbs and braces. A member of The Medical Society of New Jersey (Dr. Henry H. Kessler) is one of the directors of this new American Board for the Certification of the Prosthetic and Appliance Industry, Inc. In addition to Dr. Kessler, the certifying board includes Dr. Rufus Alldredge of New Orleans and Dr. Atha Thomas of Denver. The president of the board explains that:

"To be qualified for certification an applicant must prove that he has had at least four years of actual experience under proper supervision or two years of special training and one year of experience. In addition, the applicant must present the signatures of two physicians who state that he meets various other requirements. More than 100 firms and 200 fitters have already applied for certification.

"The medical profession has been of invaluable assistance during the two years of intensive work which has finally resulted in the incorporation of the American Board for Certification of the Prosthetic & Orthopedic Appliance Industry."

Address of the new Board is "Washington Building, Washington 5, D. C."

OBITUARIES

DR. THOMAS D. BLAIR

Dr. Thomas D. Blair of Watchung died at Muhlenberg Hospital after a month's illness on January 2, at the age of 72.

Dr. Blair graduated from Princeton University in 1899, and received his medical degree at the New York Flower College and Hospital in 1903. He had practiced in Plainfield for 43 years and was formerly senior attending surgeon at Muhlenberg Hospital.

DR. ERWIN GUTMANN

Dr. Erwin Gutmann of Jersey City died of a heart ailment on December 22, 1948.

Dr. Gutmann was born in Trenton in 1904, but had lived most of his life in Jersey City. With the exception of his wartime service in the European theatre with the Army Air Force in World War II. Dr. Gutmann had been practicing in Jersey City since 1933. He received his medical degree from Cornell University in 1929, and served his internship in Mt. Sinai Hospital, New York.

DR. GEORGE A. POLAND

Dr. George A. Poland, well-known Pleasantville gynecologist, died on December 19, 1948, after a lengthy illness.

Dr. Poland was born in Evert, Mich., in 1892. He was graduated from Jefferson Medical College in 1925 and served his internship at Atlantic City Hospital. At the time of his death he was on the staff of Atlantic City Hospital.

An active sportsman, Dr. Poland was especially interested in hunting, fishing and golfing.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

Moving forward in the reorganization of the State Department of Health, Dr. Bergsma has named Dr. A. J. Casselman Director of the Bureau of Laboratories. This is the third of six bureau directors to be selected under the reorganization. Dr. Marguerite F. Hall has been appointed Director, Bureau of Vital Statistics and Administration, and Dr. Carl E. Weigele was designated Director of the Bureau of Preventable Diseases in earlier announcements.

In 1919, Dr. Casselman was appointed Chief of the Bureau of Venereal Disease Control on a part-time basis and has been associated with the venereal disease control work of the Department since that time. For the past two years he has been full time Chief of the Division of Venereal Disease Control.

Dr. Casselman received his M.D. degree from the University of Pennsylvania in 1911, and a Dr. P.H. with a Certificate of Proficiency in Tropical Medicine in 1915. His hospital internship was served in the Cooper Hospital in Camden and the St. Agnes Hospital in Philadelphia. In 1913 he became associated with Dr. John H. Kolmer as a Demonstrator in Clinical Pathology and Instructor in Serology at the Philadelphia Post-Graduate Medical School. In 1913 he was named Assistant Pathologist for Serology at the Philadelphia General Hospital.

In 1915 he went to England to take charge of the medical and laboratory work in a war hospital under Sir William Osler. He then left England for France to assume charge of the Wassermann work for the A.E.F. in the Paris area. Later he was assigned as chief of the Central Laboratory for the District of Paris A.E.F. In June 1919, he returned to the United States to resume private practice in Camden.

Because of his laboratory and clinical experience with the subject, he was appointed Chief of the year old Bureau of Venereal Disease Control. Dr. Casselman did not lose interest in laboratory diagnosis as he was pathologist for ten years at the West Jersey Hospital in Camden. Indeed, since 1922, he has been in charge of the Public Health Laboratory of the City of Camden. For some years he has also been Pathologist to the Camden County General Hospital.

When Flosdorf and Mudd developed the lyophile process for the preservation of serum, Dr. Casselman found this process useful for the standardization of syphilitic serum. He reported a method of standardizing the tests for syphilis with "lyophile" syphilitic serum to the Serologic Conference in Hot Springs in 1938. This work, discontinued during the war, will be revived in a few months. As an aid to standardization, Dr. Casselman made large quantities of Mazzini antigen each year, and the Division of Venereal Disease Control has supplied Mazzini antigen of a constant standard of sensitivity without charge to any New Jersey public, private or hospital laboratory requesting it for the past ten years. This has been an inexpensive and effective way of standardizing the tests for syphilis.

The Director of the Bureau of Laboratories will plan, organize and direct the activities of the Bureau, which will include all of the laboratory functions of the Department. He will plan, organize and direct a central laboratory equipped to perform all laboratory services required by the State Department of Health, including bacteriologic, parasitologic, virologic, serologic, chemical, pathologic and other examinations to aid in the diagnosis, control and treatment of preventable diseases, or associated with efforts to enhance the positive health of citizens.

Dr. Casselman is well known throughout New Jersey as a result of his many years of work in the State Department of Health. He is recognized nationally also through his research accomplishments. It is not so well known, however, that at the same time Dr. Casselman is an accomplished horticulturist and has developed several varieties of iris on his farm in South Jersey. One of his early developments is the registered iris "Blue Twilight". Many of his new varieties are growing in the extensive Presby Memorial Gardens in Montclair, and are viewed by large numbers of people during their blooming period at the end of May each year.

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

T. Bruce Dickson, M.D., Reporter

The *Burlington County Medical Society* met on January 13, 1949, at the Riverton Country Club.

Continuing the yearly custom of the County Society the program consisted of case reports by four of its members.

The first was given by Dr. Edward F. Mazur on *Polycythemia.* He described the various types and the treatment. This paper was discussed by Dr. Luis E. Viteri.

The second case was *Chronic Pulmonary Disease* which was presented by Dr. Morris A. Robbins. This case was one of chronic asthma of long standing which was complicated by kidney and cardiac pathology. The discussion which followed was led by Dr. Perry MacNeal.

Dr. R. Winfield Betts presented the third case which was *Atypical Rheumatic Fever.* Dr. Betts gave the history, symptoms, and laboratory reports of this case after which he presented the problem of the differential diagnosis. Dr. S. Emlen Stokes discussed the paper.

The last case was one of *Secondary Anemia* which was given by Dr. Richard T. Buckley. He described the many complications that occurred and the method by which these were treated. The discussion which followed was led by Drs. R. E. Haldeman and Luis E. Viteri.

In the absence of Dr. W. P. Mulford, treasurer, Dr. Sparks gave the treasurer's report and explained the reasons for the great increase in the annual dues.

Dr. Edward R. Hunter of Delanco was elected to emeritus membership.

A guest of the evening was Mr. James Bryan, the State Executive Officer. He explained the assessment which is being levied by the American Medical Association. Many of the members present asked him numerous and varied questions which he gladly answered.

The officers for the Burlington County Medical Society for the year 1949-50 are as follows:

President, E. Vernon Davis
President-Elect, R. Winfield Betts
Vice-President, T. Bruce Dickson
Treasurer, William P. Mulford
Reporter, Freeman W. Metzer
Secretary, Richard T. Buckley

CAMDEN COUNTY

Harold K. Eynon, M.D., Reporter

The regular monthly meeting of the *Camden County Medical Society* was held January 4. The speaker of the evening was Dr. Henry L. Bockus, professor of Gastroenterology of the Graduate School of Medicine, University of Pennsylvania, who spoke on "Recent Advances in Cancer of the Gastro-intestinal Tract". Dr. Bockus gave a masterful survey of the problem of cancer in the entire gastro-intestinal tract. Following a discussion period the meeting was adjourned.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

With the president, Frederick J. Faux, M.D., in the chair, the January meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, on the 20th.

Dr. I. N. Patterson, chairman of the Legislative Committee, read a clipping from a Paulsboro paper which was very critical of the M.D.s of that borough, but went out of its way to praise another practitioner. After the incidents were clarified by the Paulsboro men present, much discussion followed concerning the feasibility of some arrangement in each borough or adjoining boroughs, to insure medical coverage at night and over weekends. This was left up to the individual physicians to work out.

The treasurer, Dr. David R. Brewer, announced that another bill would soon be issued covering the $25 A.M.A. assessment.

Before approving the proposal of the Red Cross to bleed the citizens of Gloucester County to the tune of 2000 pints per year, it was decided to consult the State Society concerning its feeling in the matter.

Secretary Bowersox announced that the Board of Freeholders had notified him that $15 was enough for an autopsy, and that the $5 fee per case was set by law, and that no increases would be forthcoming.

It was decided to send in no nomination for the General Practitioner's Award.

Dr. William T. Beall of the program committee then presented the speaker of the evening, L. Kraer Ferguson, M.D., professor of Surgery at the Graduate School of Medicine, University of Pennsylvania. Dr. Ferguson gave a very enlightening and interesting illustrated paper on "Carcinoma of the Stomach". The discussion was opened by Dr. Edwin Ristine of Camden.

MERCER COUNTY

A. D. Hutchinson, M.D., Reporter

A most interesting program arranged by the Staff of St. Francis Hospital greeted the members of the *Mercer County Medical Society* on the evening of January 12.

Dr. R. J. Cottone delivered a very instructive resume on the subject "Ten Year Survey of Colon Surgery". Dr. J. F. Johnson discussed, with the aid of films, "Duodenal Ulcer Diverticulum—Symptomatic Similarity to Duodenal Ulcer". Dr. David Eckstein related several outstanding cases relative to "Myocardial Lesions in Coronary Insufficiency and Related Conditions". Dr. H. A. Kaplan emphasized the necessity of treating "Myocardial Infarction in the Absence of Acute Coronary Occlusion", to accomplish desired cardiac stability. Dr. R. C. Turner outlined several standard procedures employed in many hospitals in "The Treatment of Sudden Cardiac Onset," with respect to anesthesia particularly.

Drs. R. W. Davison, A. S. Fell, W. J. Harman, B. W. MacFarland, J. B. Sill, I. F. P. Turner, and

J. H. McCULLOUGH were elected Emeritus members of the Society. The following applications for membership were referred to the Membership Committee: DRS. T. E. CONE, JR., D. H. ROBINSON, H. E. TOPLEY, P. T. WILLIAMS and L. D. YAZUJIAN.

THOMAS E. ROBINSON, County Superintendent of Schools desires an audience to present the subject of the Blind in the Schools of Mercer County,— programs to be arranged by Mrs. Emma Home in the use of the eyemobile, operated under the N. J. Commission for the Blind.

We are invited by ANETTE DEVOL TRUMBULL, Director of Social Service of the N. J. State Hospital, to hear Dr. Mabel Ross, Director of the Prince George County Mental Health Clinic, speak on the subject "Mental Hygiene Clinics", on January 21.

President Corio appointed DRS. J. F. PESSEL, L. S. SICA and J. L. WIKOFF as Delegates to the Trenton Council of Social Agencies.

DR. WIKOFF, chairman of Public Relations and Public Health reported that 18 members had signed up for the Speakers Bureau on "Compulsory vs. Voluntary Health Insurance".

The Public Relations Committee was authorized with discretionary powers to reply to the editorials appearing in the Press.

Dr. Carabelli, chairman of the Committee on Constitution and By-Laws was instructed to proceed in the process of printing the revised document.

MIDDLESEX COUNTY

Anthony J. Pellicane, M.D., Reporter

The annual dinner meeting of the *Middlesex County Medical Society* was held at Mario's Restaurant, Metuchen, December 15, 1948, at 6:30 p. m.

Following a delicious filet mignon dinner, the meeting was called to order by DR. EDWARD F. KLEIN, president.

On recommendation of the chairman of the Medical Ethics Committee, Dr. C. H. Calvin, the following physicians were elected to regular membership: DR. JOSEPH C. BORRUS, New Brunswick on transfer from the Essex County Medical Society; DR. EDWARD HURTADO, New Brunswick on transfer from the Union County Medical Society; DR. PHILIP BOYER, Metuchen on transfer from the Washtenaw County Medical Society, Michigan; DR. LOUIS PERILLO, Perth Amboy on transfer from the Richmond County Medical Society, Staten Island, N. Y.; DR. MAX SCHILLER, New Brunswick, was elected to a two-year period of associate membership.

A full report of the status quo of the treasury was given by Dr. George J. Kohut.

A report of the progress of the Group Hospitalization Insurance Plan for members of the society, their families, and employees, was given by Dr. Benjamin F. Glasser, chairman of the Committee. Application for contract for hospital service plan will be mailed to each member of the Society.

The report of the Nominating Committee presented at the November meeting was unanimously approved.

The following were elected to the Committee on Medical Ethics: DR. GERARD R. GESSNER, New Brunswick, one year; DR. N. N. FORNEY, SR., Milltown, one year; DR. MARSHALL SMITH, New Brunswick, one year; DR. BENJAMIN MANN, Perth Amboy, two years; DR. C. W. HOFFMAN, South Amboy, two years. (The Chairman of the Committee to be named by the members of this committee.)

The suggestion that we alternate meetings for business to better carry on the important society matters, was approved.

Dr. Klein introduced the guest speaker, MR. ROBERT J. GRIFFITH, Field Supervisor of the F.B.I., who gave an interesting talk on "The Activities of the F.B.I."

MONMOUTH COUNTY

Lester A. Barnett, M.D., Reporter

Under the chairmanship of DR. FRANK J. ALTSCHUL, its president, the *Monmouth County Medical Society* held its regular monthly meeting at the Monmouth Memorial Hospital, Long Branch, on December 15, 1948. DR. MURRAY BASS, director of Pediatrics, Mount Sinai Hospital, New York, presented "Some Recent Advances in Our Knowledge of the Contagious Diseases of Children with Special Reference to Immunization Procedures". The paper was well received and discussed by some of the county pediatricians present.

DR. ROBERT F. BARBER of Neptune was elected to honorary membership and DR. MAX SILVERSTEIN of Asbury Park was reinstated as a full member by those present.

An Executive Committee report summarized the Public Health Week results and announced the formation of a committee to aid in the selection of a county physician. Another committee was appointed to select candidates for the annual General Practitioner's Award. DR. BYRON BLAISDELL was proposed as a candidate for second vice-president of The Medical Society of New Jersey.

Dr. Blaisdell gave a vivid and timely report on the recent meeting of the State Society's Welfare Committee at Trenton regarding the current approach to patient care.

A discussion on medical economics closed the meeting.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on January 18, at 9:00 p. m., at the Woman's Club, Paterson, with DR. J. ALLEN YAGER, president, presiding.

Dr. Theodore K. Graham, in the absence of Dr. Norman Dingman, read the following resolution on the death of Dr. Charles B. Russell:

> WHEREAS: the members of the Passaic County Medical Society feel a deep and sincere regret in the passing of Dr. Charles B. Russell, and
>
> WHEREAS: for more than forty years, he practiced his profession, faithfully and honorably. Dr. Russell was born in New York on March 28, 1876. He was graduated from Illinois College with a B.S. degree in 1898, and completed Harvard University Medical College in 1904. During the first year of his practice,

he did post-graduate work at both the Skin and Cancer and Polyclinic Hospitals, New York City. He put his first shingle out on December 10th, 1906, at 16 Church street, Paterson, was elected to membership in the Passaic County Medical Society in 1908, and was granted Emeritus Membership in December 1947.

WHEREAS: The Divine Creator, in His Infinite Wisdom, has seen fit to call unto Himself our respected colleague and friend,

BE IT RESOLVED: that the members of the Passaic County Medical Society deeply mourn the loss of our colleague, Dr. Charles B. Russell and express our heartfelt sympathy to his bereaved family.

BE IT FURTHER RESOLVED: That this Resolution be spread in full upon the minutes of this meeting and a suitable copy thereof be presented to his family.

Signed: Norman M. Dingman, M.D.

At the business session preceding the speaker, the following members were elected: Active membership—CARL RASIN, M.D., HENRY BUKLAD, M.D., ISADORE HERMAN, M.D., of Passaic; WOLFGANG E. VOGEL, M.D., STANLEY GERSON, M.D., and LEONARD E. KREMER, M.D., of Paterson; JAMES R. SCHEIP, M.D., of Glen Rock. RALPH L. DE LUCCIA, M.D., and GEORGE E. MURPHY, M.D., of Paterson, were elected to Associate membership. DR. ABRAHAM GOLDFARB, of Paterson, was elected to Courtesy membership.

Dr. Yager introduced the first speaker of the evening, SAMUEL L. SIEGLER, M.D., director, Gynecological Service, Unity Hospital; attending, Gynecology and Obstetrics at Brooklyn Women's Hospital; assistant, Gynecology and Obstetrics at Greenpoint Hospital, whose paper, illustrated with lantern slides, covered the female aspects, diagnosis and treatment of sterility.

ROBERT S. HOTCHKISS, M.D., introduced by Dr. Yager, is director, Urology Service Bellevue Hospital; associate professor of Surgery (Urology), Cornell University; assistant attending surgeon, New York Hospital; assistant visiting surgeon, Bellevue Hospital. Dr. Hotchkiss covered the male aspects of diagnosis and treatment of sterility and also illustrated his paper with slides.

Dr. Yager asked for a vote on preference as to meeting place. An enthusiastic response was received for the Woman's Club. Following the meeting, a collation was served by a committee of the Woman's Auxiliary, under Mrs. Peter J. De Bell, with Mrs. Theodore K. Graham and Mrs. Earl L. Warren comprising the committee for this meeting.

WOMAN'S AUXILIARY

EXECUTIVE BOARD MEETING

MRS. THOMAS H. MCGLADE, Chairman, Press and Publicity

Fifty-one members attended the Executive Board Meeting of the Woman's Auxiliary to The Medical Society of New Jersey, held on January 10, 1949, at 315 W. State Street, Trenton. Mrs. Robert B. Walker presided.

Reports were read by the state chairmen and county presidents.

Following the luncheon recess, Mr. W. Harry Bloor gave a talk which explained the "Do-s and Don't-s of Making a Will".

Mr. James E. Bryan spoke briefly on the doctors' need of the Auxiliary.

Mrs. Walker's recommendations were adopted. They concerned (1) placing in memoriam inscribed plates on the photographs of deceased past presidents and (2) selecting a name for the State Auxiliary News Bulletin which will be recorded at the National Office.

An outline of the Convention Program was read by Mrs. David B. Allman.

The suggested slate of officers was read by Mrs. Lodovico Mancusi-Ungaro, chairman of the nominating committee.

Delegates and alternates to the American Medical Convention were nominated.

The means for collecting the increase in dues for our National Auxiliary is to be left to the discretion of each county.

AUXILIARY REPORT

Hudson County

Mrs. Morris Bresev, Chairman, Press and Publicity

The Woman's Auxiliary to the Hudson County Medical Society held its regular meeting January 3, 1949, in Murdoch Hall, Jersey City. The meeting was called to order by the president, Mrs. William Gleeson.

Mrs. Gleeson thanked the members for their assistance in the recent Diabetes Detection Drive.

Mrs. Albert Lepis, chairman of the dinner dance that was held in November reported the affair was a success.

Mrs. John Muccia, Program chairman, presented the speaker of the afternoon, Miss Arretta L. Watts, a member of the staff at DuPont's Research Department. Her topic was "Research and Everyday Living".

Following the meeting tea was served by Mrs. Albert Lepis, Mrs. Fred Sachs, Mrs. Samuel Barlshaw and Mrs. Morris Bresev.

BOOK REVIEWS

Essentials in Pathology. By Lawrence W. Smith, M.D., and Edwin S. Gault, M.D., 3d Ed. Pp. 764. Phila., The Blakiston Company, 1948. ($12.00)

The authors have correlated basic science with clinical subjects by giving examples of case histories together with the gross and microscopic findings so that pathology becomes an integral part of clinical medicine. They have not presented the changes in the cells and tissues as an abstract subject but as actual parts of the clinical picture. They have succeeded in placing the study of pathology as a unit in the study of medicine.

Emphasis has been given to the chapter on inflammation including experimental study of the process of inflammation. The chapters on animal parasites and oncology also have a prominent place, as neoplasms play such an important part in the daily practice of medicine. They have discussed in considerable detail the question of the cause of cancer.

The authors see pathology as a nucleus about which all the departments of medicine and surgery revolve. To them pathology is the science of medicine.

In the foreword the late Doctor Ewing says, "In the present treatise, Dr. Smith and his collaborators have succeeded, to an admirable degree, in covering the broad field of pathology from the standpoint of the student's needs and the laws of psychology. They balance the clinical picture with as much theoretical data as it will carry and make it possible for the student to undertake histopathologic interpretation with interest and intelligence. The very numerous illustrations are uniformly of a high order and in their context readily understood. While this laboratory textbook will show its highest value when the sections presented actually represented cases observed, the method employed will not lose its efficiency in any laboratory course. One may therefore predict a wide popularity for such a treatise and an improvement in the general results of the teaching of pathology to medical students where it may be introduced."

This volume is a valuable addition to the library of the student and practitioner as a ready reference in the field of pathology.

Samuel A. Goldberg, M.D.

Dementia Praecox: a Review and Evaluation. By Leopold Bellak, M.D., foreword by Winfred Overholser, M.D. Pp. 456. N. Y., Grune & Stratton, 1948. ($10.00)

On the basis of his own clinical experience, Dr. Bellak formulates one hypothesis of the etiology and nature of dementia praecox. He suggests that dementia praecox is due to many different etiologic factors of a psychosomatic constellation. He discusses the number of first admissions, the usual resident population of this disease in the various mental hospitals. Whereas most of the other diseases are important from a standpoint of public health, e. g. diseases of advanced age such as cancer, he stresses that dementia praecox, on the other hand, usually strikes in early adult life, and is a worse danger than malignancies, for it precludes these individuals from carrying on substantial industrial activity at an early age.

He then reviews the pathogenesis, pathology, diagnosis and symptomatology, physiologic studies, psychologic studies, the many therapies (including electric shock treatment, somatic therapy, and prefrontal lobotomies and psychotherapy), and the relevant vital statistics.

The author suggests that it would be diagnostically helpful to assign each case a "point" on the continuum, taking into particular consideration the relative prominence of somatic predisposition, sociopsychologic predisposition, psychologic precipitating causes, and somatic precipitating causes. He sets up a unique differentiation of schizophrenia from dementia praecox, carefully studying the sudden onset, adequate prepsychotic personality, precipitating factors, confusion, catatonic symptoms, and some affective features prominent in the clinical picture. Schizophrenia, he believes, is a predominantly psychogenic reaction, with a better prognosis than dementia praecox proper, which has a poor prepsychotic history and constitutional characteristics of insidious onset in the presence of a clear sensorium and a conspicuous absence of any adequate affect.

This work is highly recommended for those who desire a better knowledge of this subject.

M. W. Bergman, M.D.

Physician's Handbook. John Warkentin and Jack D. Lange. University Medical Publishers, Palo Alto, California. Pp. 293. (1948) Ed. 5. ($2.00)

Since this *vade mecum* is likely to get rough handling in the bag or pocket of the conscientious physician, it is too bad the publishers did not bind it more substantially. The spiral ring binding is an invitation to page detachment, and the typewriter-like lithography is a bit taxing on the reader's eyes. This is unfortunate because the book is a comprehensive manual which packs into its pages an enormous amount of clinically useful data.

It includes metric conversion tables, blood and spinal fluid norms, hints on examining an unconscious patient, liver function tests, water analyses, history outlines, gastric analysis technics, dosages of common drugs, staining methods, height and weight tables, antidotes, obstetrical measurements and a dozen other useful tables.

There are charts of body regions, reflex levels, heart x-ray shadows, cerebral localization, areas of reflex pain involvement, and silhouette outlines of various tapeworms. The book is pocket-size and any busy practitioner who has leafed through it, must readily agree that it is well worth the pocket space.

Victor Huberman, M.D.

The Skull, Sinuses and Mastoids. A Handbook of Roentgen Diagnosis. By Barton R. Young, M.D. Pp. 328. Chicago, The Year Book Publishers, 1948. ($6.50.)

This book has been stripped to the essentials necessary to explain the illustrations. The format, organization, reading and index are excellent. An amazing amount of material is condensed in this small book.

Especially calling for commendation are the sections on the normal, from birth to adult life. The sections on platybasia, parasitic diseases, cerebral angiography, temporo-mandibular joint syndromes, and xanthomatose are rather sketchy but the author gives excellent references in the bibliography.

It is regrettable that the author made only mere mention of opaque contrast media, proetz displacement methods, planigraphy, and pneumograms. Dental pathology (in relation to the sinuses and tumors of dental origin) is not discussed.

The actual technic of roentgenography advocated will engender disagreement among some radiologists. However, the excellent illustrations are evidence of the meticulous technical details employed at the Temple University Hospital.

This book meets a need in the library of every otolaryngologist, neurosurgeon, general practitioner and radiologist as a quick and readable reference book. It is not on the specialist level and will not take the place of the more comprehensive text books in this field.

HENRY Z. GOLDSTEIN, M.D.

Pediatrics and the Emotional Needs of the Child. Edited by Helen Witmer. Discussions by 49 pediatricians and psychiatrists. Pp. 180. Commonwealth Fund, New York, 1948. ($1.50)

The pediatrician has been asked in the past to take a more active role in mental hygiene, but he has been frustrated by a lack of knowledge and by the vagueness of the term "mental hygiene". When he turns to psychiatry for help, he finds his frustration deepened by the professional isolation of the psychiatrist. Recognizing this, many medical schools now have departments of child psychiatry using child psychiatrists and pediatricians with psychiatric training to teach psychologic approaches to child care.

Sponsored by the Commonweath Fund, a pediatric-psychiatric conference, attended by the country's leading psychiatrists and pediatricians and some social workers, was held in March, at Hershey, Pa. This book is a comprehensive report of the conference edited by Helen Witmer, Ph.D.

Dr. Milton Senn discusses some common emotional problems of childhood, and decries the lack of research and study as shown by the paucity of recordings by clinical observers. He makes a plea for more accurate collection of data and a closer alliance betwen psychiatry and pediatrics so both disciplines may be enriched.

Dr. William S. Langford points out what a rich opportunity the pediatrician has for observing parent-child relationships in action, since his contacts are spread over years starting from infancy. He reminds us that parents carry over into relations with their children their unresolved conflicts, and concludes that the physician, in the fortunate position of professional authority, should be non-critical and accepting.

Dr. Alfred Washburn finds that a definite temperament goes with each morphological type. He suggests that emotional responses are a part of the unique physical and physiologic characteristics interacting with the various factors in one's own environment.

Dr. John Murray asks that a more intensive study be made of early anal and oral phases. Emotional preparation of the prospective mother for child birth is stressed.

This report is a valuable cross section of our present body of knowledge of human behavior and points up the great need for more study. It should serve as a stimulus for greater cooperation between the various groups interested in mental hygiene.

RALPH NEIL SHAPIRO, M.D.

Vascular Diseases in Clinical Practice. By Irving Sherwood, M.D. Pp. 514. Chicago, Year Book Publishers, Inc., 1948. ($7.50)

Containing all of the most recent concepts, this book corrects some of the most glaring misconceptions of peripheral vascular diseases too recently current. He emphasizes that the peripheral vascular tree must be regarded with the vascular system as a whole in mind. He reminds us of the adequacy of the five senses in reaching almost all necessary conclusions as to diagnosis. This is reassuring to the man who wishes to make a proper examination without burdening himself with extra equipment that is usually only necessary for research. The extremely practical aspects of the book are carried out throughout the context going from the comparatively simple and common arteriosclerosis obliterans to the rarer tumors of the blood and lymph vessels.

There is a very interesting chapter on the neurovascular syndromes of the shoulder girdle, including the scalenus anticus syndrome and the more recently described hyperabduction syndrome.

Functional diseases of the blood vessels are carefully outlined and described as well as the organic lesions. For a book of its size, it is remarkably complete in covering many details. Illustrations are profuse and practical and the bibliography is well selected at the end of each chapter. There is an excellent chapter on nomenclature. Although this volume may be somewhat disappointing to those who are thoroughly familiar with the subject because it lacks some details in treatment, it is difficult to name a better one for an overall review for the general practitioner, the internist or surgeon. Most of all, it emphasizes a woeful neglect in the curricula of our medical schools. It is strongly recommended for *important* postgraduate reading.

EVERETT O. BAUMAN, M.D.

The Reach of the Mind. J. B. Rhine, Ph.D. Pp. 235. William Sloane Associates, New York 1948. ($3.50)

Even if Rhine's conclusions are only half true, this book opens the door to a potential intellectual and spiritual revolution. It offers evidence for the existence of telepathy, clairvoyance, prophecy and the power of mind over matter. The evidence is presented in rigorous scientific fashion, but since the subject matter is essentially "non-natural", the medical scientist has great difficulty in accepting the conclusions. For example, the basic procedure uses a deck of 25 special cards, consisting of five suits, each printed with a specific symbol (star, circle, etc.). Each card is placed in a sealed opaque envelope and the subject tries to determine what card is in each envelope without any sensory clues. As a matter of chance, he is likely to get five right out of each deck of 25. The best individual subject averaged eight hits per deck. The mathematicians tell us that the odds are about a billion to one against this score having been reached by mere chance. Therefore, argues Rhine, some other factor is at work. This he calls "extrasensory perception". The critical reader will raise two objections. First, a score of 8 right and 17 wrong per set is scarcely anything to get excited about, especially since any one would get five right by sheer chance. Second, if a medical scientist recommended a drug because it effected recovery in eight out of 25 cases whereas the previous treatment brought about recovery in five out of 25 cases, the claim would not merit much attention.

Rhine ignores failures in scoring because, he says, to establish the reality of the phenomenon, it is sufficient to prove only that someone has extrasensory powers. But if those who scored only two or three per deck are averaged with those who registered seven or eight, the net result would approximate a chance score. And this seems to me the only correct way of evaluating results.

Similar reasoning is used to establish the existence of the power of prophecy and the actual physical influence of mind over matter. Since scores are usually low (though above the theoretical chance threshhold), Rhine confesses that the phenomena "are not ready for reliable use". This does not, of course, warrant any blanket condemnation of the project, since many a presently practical procedure had its roots in the apparently "useless" realm of pure science.

The book is a serious and sober effort to demonstrate an elusive phenomenon which, if real, would utterly change the face of the world. Some understanding of extrasensory perception and its several ramifications is by now part of the equipment of every educated person. The text is interesting, the problem is challenging. This reviewer is, for the reasons indicated, not converted to faith in extrasensory perception. But it *is* staggering to read a well-documented volume which, if it does not establish the divinity or immortality of the human soul, comes close to indicating its reality.

Henry A. Davidson, M.D.

The Electron Microscope: Its Development, Present Performance and Future Possibilities. By Dr. D. Gabor. Pp. 164. New York, Chemical Publishing Co., 1948. ($4.75)

This is a good book: it explains electron microscopes clearly and succinctly; it is a valuable book: it analyses the theoretical background underlying the physical instruments and offers a distinct contribution to their improvement. It is neither too elementary nor too technical. The mathematics required is not too difficult and, while it does demand a more than elementary knowledge of modern physics and optics, the excellent bibliography affords adequate help in these subjects to those in need of it. Because it is intended as "both an introduction to the electron microscope and a critical contribution to its theory" it is perforce impelled more directly to the technical reader, but it may be studied by others with considerable profit.

The book is well organized and proceeds to the accomplishment of its purpose with lucidity and dispatch. The development of simple and super microscopes is traced and their resolution limits defined.

General and technical readers will find in its pages a sanity of viewpoint that should do much to reduce extravagant claims for the instruments to reasonable limits. It is always of the essence to know what an instrument is intended to do, what may be expected of it, and what the measure of its reliability is. All these points are carefully brought out. Physicians will find it invaluable as a parameter to possible research use. Gabor agrees that the electron microscope is complementary, not supplementary to the optical microscope. Both have their proper functions and limitations. A section on the possible proton microscope drives the lesson home. The recent announcement of the refraction of x-rays may mean the near construction of an x-ray microscope, driving the limit of visability still further down the spectrum scale.

Irving P. Orens, Ph.D.

Pharmacology, Therapeutics and Prescription Writing for Students and Practitioners. By Walter Arthur Bastedo, Ph.G., M.D. 5th ed. Pp. 840. W. B. Saunders Co., 1947. ($8.50)

Advances in the field of chemistry and biology have brought forth many new and valuable drugs. The author has covered prescription writing and incompatibilities which, up to the present, has been a weak link in the teaching of modern medical schools. Sections on the circulatory and nervous systems are worth reading. Chemotherapy and acid-balance are well covered. The pharmacologic action of drugs is thoroughly discussed. I believe, however, that Latin terminology and abbreviations should be discontinued and that the metric system should become universal. The work would have been more useful to the reader if the author had included his favorite prescription in each section of therapeutics. Nevertheless, Bastedo's book is a standard work and can be highly recommended.

Louis Simonson, M.D.

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **February, 1949** **No. 2**

UNTIL army maneuvers exposed many thousands to the disease, coccidioidomycosis was confined chiefly to a few scattered areas in the southwestern part of the United States. Infected individuals are now widely disseminated and the fact that the pulmonary lesions resemble those of tuberculosis with which it may be coexistent increases the difficulty of recognition.

COEXISTING PULMONARY COCCIDIOIDOMYCOSIS AND TUBERCULOSIS

The following is a case report in which caseous pneumonic tuberculosis with cavitation developed in a patient with coccidioidal cavity in the opposite lung. Had the previous medical history not been known, the finding of tubercle bacilli in the sputum together with the X-ray picture would have led to a diagnosis of bilateral cavity tuberculosis, and the coccidioidomycosis would have been overlooked.

This case raises the question whether it would not be wise to do routine examinations for both coccidioides immitis and tubercle bacilli in all cases of pulmonary disease with cavitation. This suggestion is in line with the conclusions reached by other investigators.

Case Report

1. F., a 24-year-old Negro, was admitted to the hospital in December, 1945. Pulmonary tuberculosis had been diagnosed on routine X-ray examination at a separation center that showed infiltration in both apexes and in the right third anterior interspace.

During the war the patient had taken part in desert maneuvers in southern California from June to December, 1943, but had had no respiratory illnesses. The past medical history was noncontributory. The family history was negative for tuberculosis.

On admission the only complaint was intermittent, slight pain in the left side of the chest for the past few months. Physical examination revealed a well-developed man who did not appear ill. There was no dyspnea or cyanosis, and examination of the heart and lungs was negative. X-ray examination showed minimal infiltration in both apexes. Planigrams showed a small thin-walled cavity just above the right clavicle.

Significant laboratory findings were as follows: A tuberculin skin test using purified protein derivative was negative in the first strength and weakly positive in the second strength. Coccidioidin skin test in a 1:1000 dilution was negative on two occasions. Sputum concentrates, examination of the gastric contents, one sputum culture and one guinea-pig inoculation were negative for tubercle bacilli. One 72-hour concentrate was negative for fungi. The sedimentation rate was 8 mm. in one hour. Urinalysis showed a trace of albumin. Blood counts were within normal limits.

The patient left the hospital against advice in March, and the discharge diagnosis was chronic pulmonary tuberculosis, moderately advanced.

The patient returned to the hospital on June 13, with the chief complaint of bilateral chest pain and a slightly productive cough. Physical examination and X-ray films of the chest showed no essential change since the previous admission. There was the same isolated, thin-walled cavity in the right apex and a small area of infiltration in the left apex.

A coccidioidin skin test was positive on July 2 in a 1:1000 dilution and positive on July 5 in a 1:1000 dilution. Sputum studies for acid-fast bacilli, including seven direct smears, five concentrates and three gastric lavages, were negative. On

July 15 the sputum was found to contain spherules of *Coccidioides immitis* on direct smear, and this was confirmed by culture on July 20. Serologic tests for active coccidioidomycosis were performed. The complement-fixation test was four plus in 1:2 and 1:4 dilutions. The precipitin tests were all negative. It was concluded that the findings indicated a coccidioidal infection. His symptoms subsided and he was discharged on February 19, 1947. He returned seven months later because of weight loss and hemoptysis. X-ray showed cavitation in both upper lobes. Sputum examination showed acid-fast bacilli on both smear and culture. Serologic tests for coccidioidal infection were repeated at this time. The complement-fixation test was four plus in dilutions of 1:2, 1:4 and 1:8 and two plus in a dilution of 1:16. The precipitin tests were negative in all dilutions. These results were interpreted as not being high enough to indicate a coccidioidal dissemination. *C. immitis* was again found in the sputum on smear and culture.

The patient left the hospital against advice on November 1, before streptomycin therapy could be instituted.

Summary

A case is presented in which coccidioidal cavitation was observed for fifteen months in a patient who subsequently developed a caseous cavitary tuberculosis in the opposite lung, with a positive sputum test for tubercle bacilli.

That tuberculosis and coccidioidomycosis may both cause pulmonary cavitation is now a well-known fact. Since the diseases may coexist in the same patient, it is advisable to check routinely for both tubercle bacilli and *Coccidioides immitis* in all patients with pulmonary cavitation.

Coexisting Pulmonary Coccidioidomycosis and Tuberculosis, Lieutenant Robert S. Study (M.C.) U.S.N.R. and Philip Morgenstern, M.D., New England Journal of Medicine, June 10, 1948.

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*Collins, E. N.: The Diagnosis and Treatment of Irritable Colon: Physiologic, Local, Irritative and Psychosomatic Factors, M. Clin. North America 32:398 (March) 1948.

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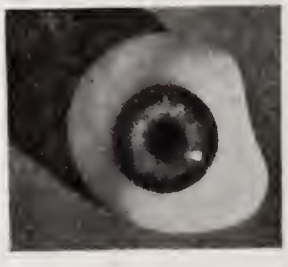
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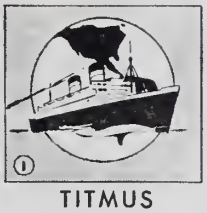
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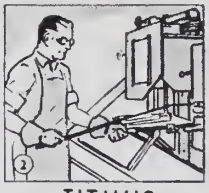
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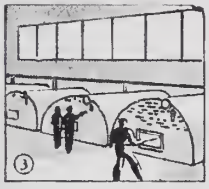
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OF

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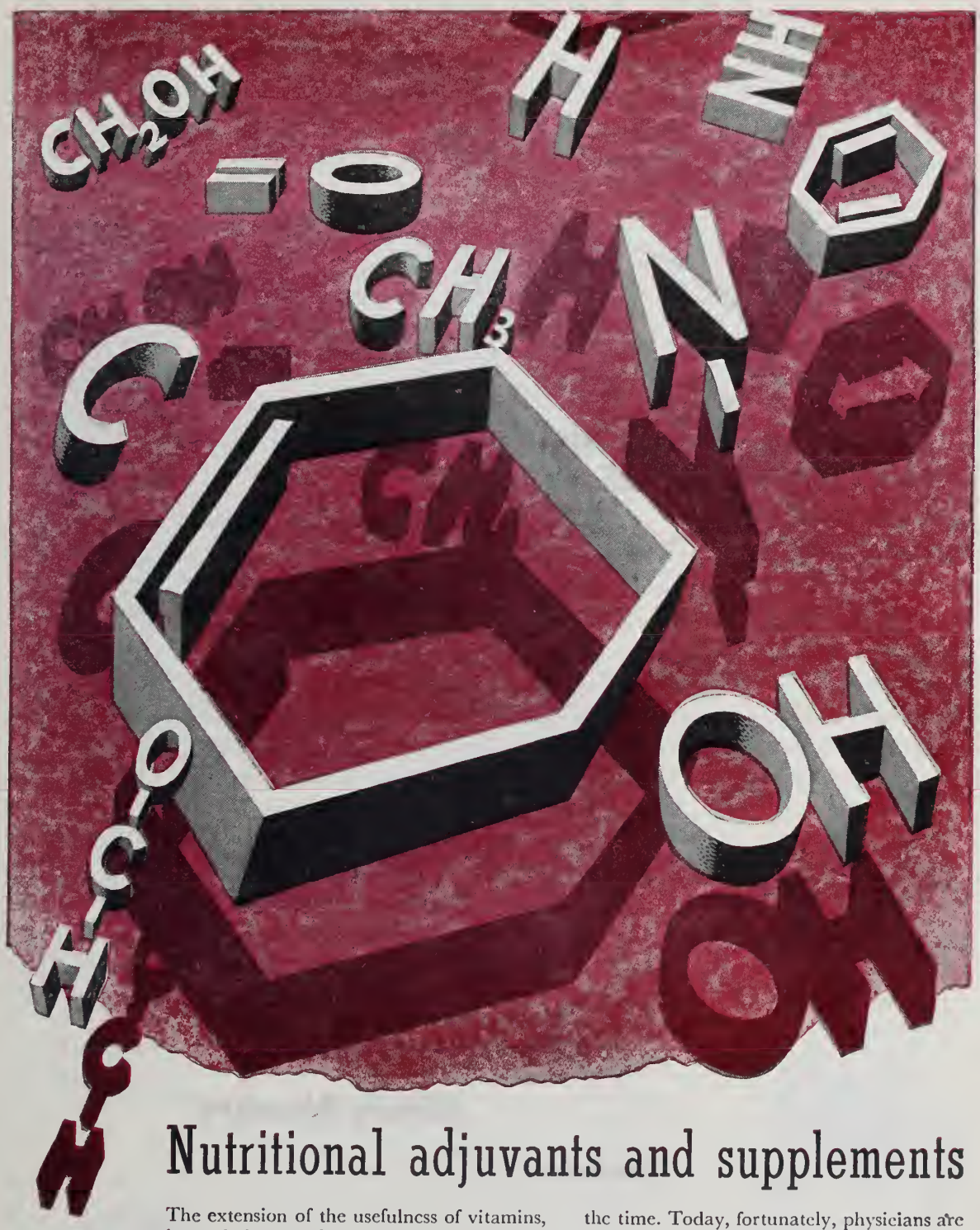
[1] McLester, J. S.: Nutrition and Diet in Health and Disease, ed. 4, Philadelphia and London, W. B. Saunders Company, 1943.

[2] Kunde, M. M.: The Role of Hormones in the Treatment of Obesity, Ann. Int. Med. 28:971 (May) 1948.

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*Rakoff, A. E.; Paschkis, K. E. and Cantarow, A.: A Clinical Evaluation of Dienestrol, a Synthetic Estrogen, J. Clin. Endocrinol., 7:688-700 (Oct.) 1947.

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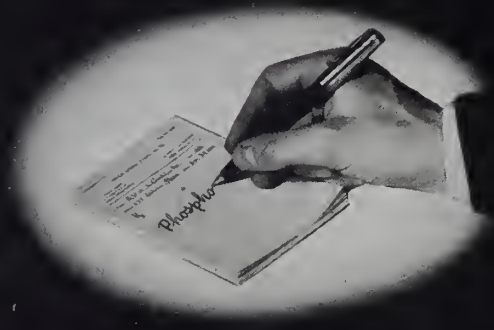
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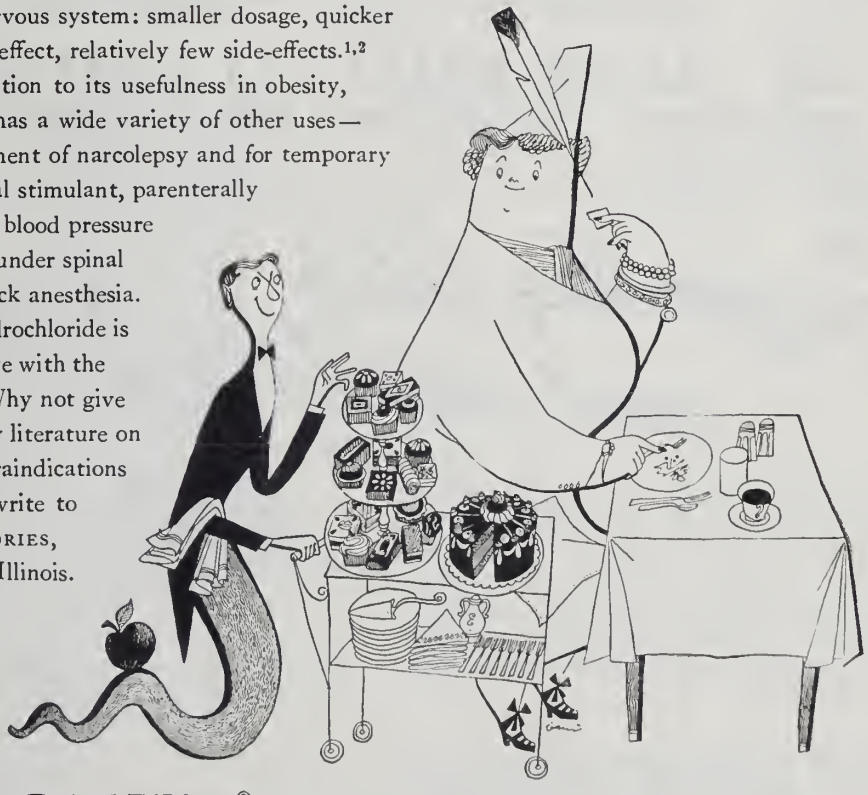
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1. Ivy, A. C., and Goetzl, F. R. (1943), d-Desoxyephedrine: A Review, War. Med., 3:60, January.
2. Davidoff, E. (1943), A Comparison of the Stimulating Effect of Amphetamine, Dextroamphetamine and Dextro-N-Methyl Amphetamine (Dextro-Desoxyephedrine), Med. Rec., 156:422, July.

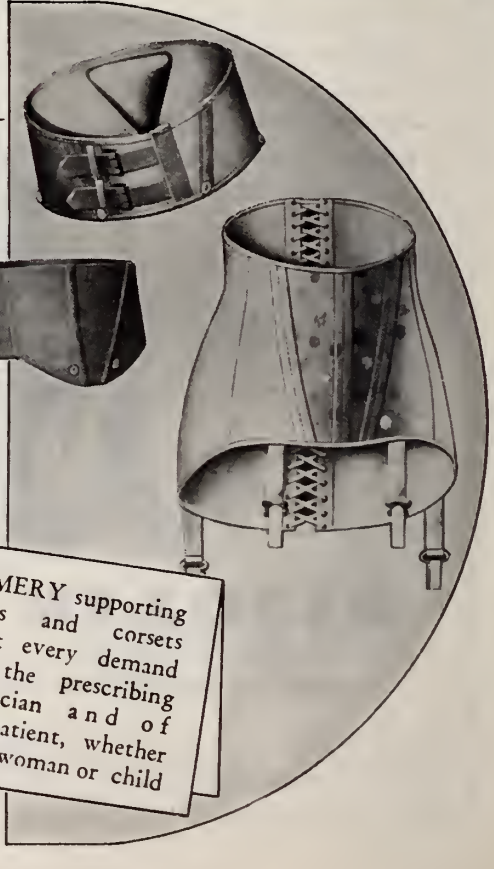
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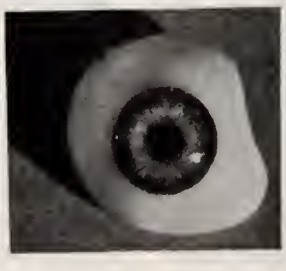
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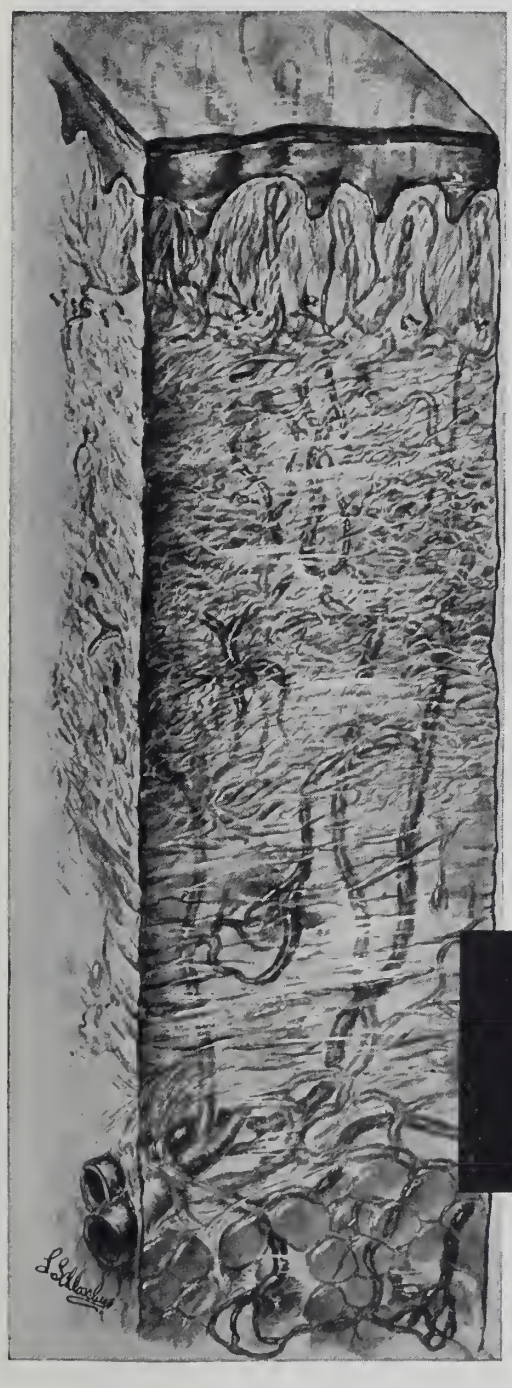
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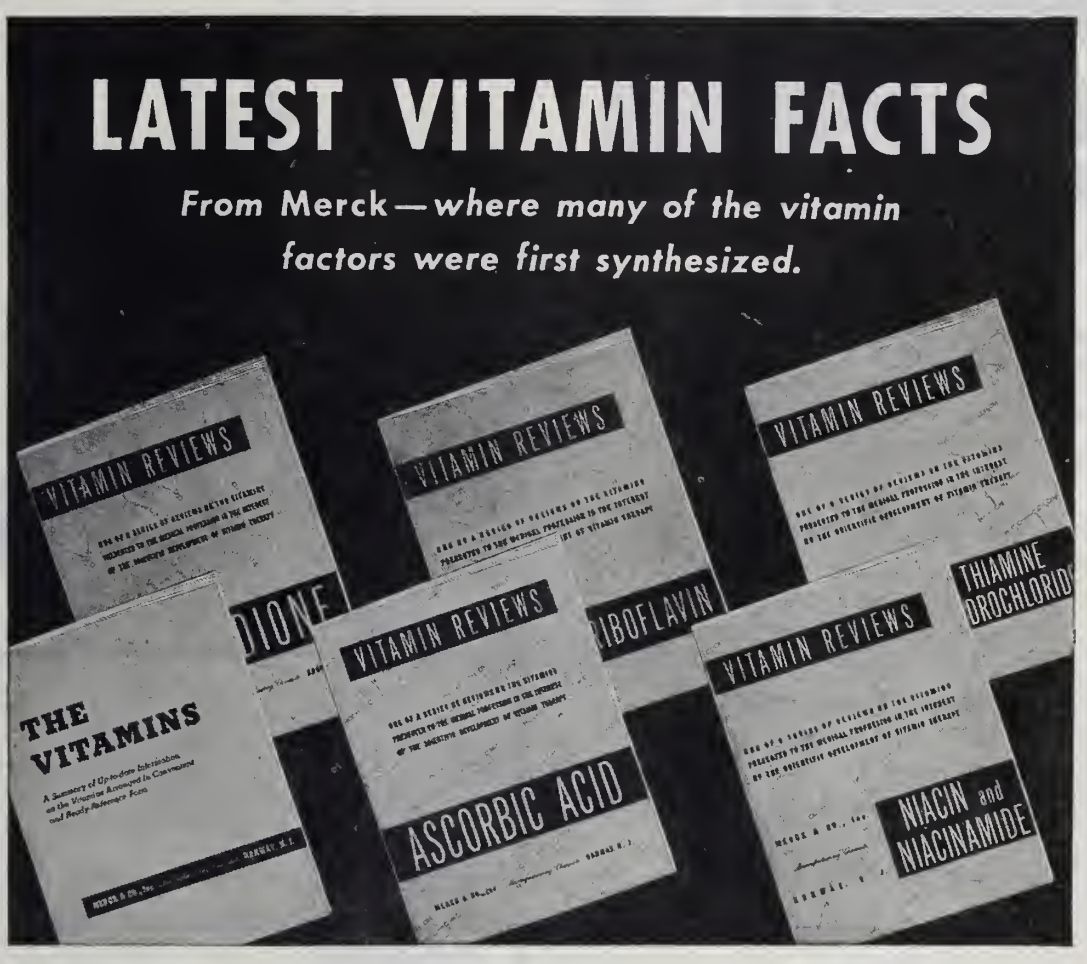
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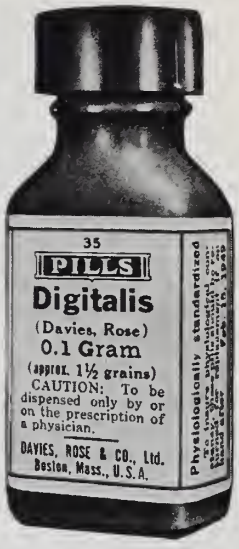
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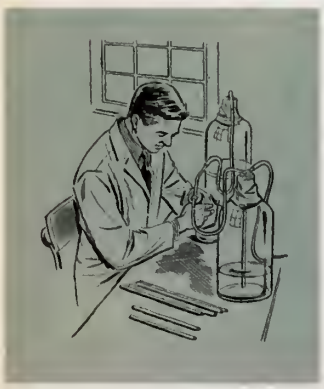


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SOCIAL MEDICINE

Elsewhere in this issue* we publish an interesting review of an interesting book. It is the volume celebrating the hundredth anniversary of the New York Academy of Medicine, released under the title *Social Medicine*. The theme of the book is the responsibility of the doctor towards social factors in the cause, prevention and treatment of disease. Thus, malnutrition can cause disease; sanitary housing facilities can prevent certain diseases; suitable working conditions can help alleviate disease. Are these any of the doctor's business? In his somewhat skeptical review, Dr. Huberman makes the point that "if most of us (doctors) threw ourselves into that good fight, who would be taking care of the patients?" It is a good point, but it skirts rather than meets the issue. The community will not forever be content with environmental factors which produce physical, emotional or mental disease. If the physician isn't interested in doing something to correct these factors, the public will look for—and find—some other group which *is* interested. And because of the health implications, medical care may well be placed under the administrative control of these "other" groups. When it comes to social factors in disease, the profession must decide whether to remain in the driver's seat and do some driving; or whether to move to the back seat. We can't have it both ways.

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* See book review of *Social Medicine*, page 156 this issue.

ORIGINAL ARTICLES

PREVENTABLE FACTORS IN MATERNAL MORTALITY †

Robert A. MacKenzie, M.D., Asbury Park, N. J.

While the number of maternal deaths in New Jersey has decreased steadily* during the past twenty years it is the unhappy realization of the Maternal Welfare Committee of The Medical Society of New Jersey that a considerable proportion of the fatalities are due to imperfect management of pregnancy and/or labor by the doctors in charge. Of the 1947 deaths, 45 per cent were considered preventable. This does not mean that every bad result is subjected to the critical analysis which Dr. Norton for example has used in reporting obstetrical deaths at the Margaret Hague Maternity Hospital.[1] Conscientious and well trained doctors may approach the same problem differently. If treatment has failed it has not been assumed that other measures would necessarily have effected a better result. The cases that we have classed as preventable involve either gross mismanagement, neglect of proper caution or ignorance of standard therapy. We have not expected of every doctor the accuracy of diagnosis and perfection of management that the specialized hospital offers, and we recognize that the complexity of pathology and the limitless variations of each obstetrical complication baffle judgment in many cases. The doctor has been given every credit possible.

When a certificate of death during or following pregnancy reaches the registrar of vital statistics, a copy of the certificate is sent to the State Department of Health. A form is then dispatched to the doctor and a duplicate questionnaire sent to the district Field Physician, a member of the county medical society. Information thus obtained may be later supplemented by records of review in county or city maternal welfare groups which meet regularly in some parts of the state to discuss maternal deaths. In some instances, the attending physician does not cooperate fully in answering the questionnaire. Then, the correct diagnosis and understanding of factors contributing to the issue must be obtained from other sources. Harder to condone than disinterest is the misrepresentation evident in a few certificates of maternal death. For one example, a case signed "myocardial failure" was found to be one of postpartum hemorrhage. The nurse's notes on the hospital chart showed that bleeding was continuous and excessive for the eight hours which the patient lived after delivery. Repeated injections of pituitrin and ergot represented the only treatment. In another case, "embolism" was blamed for the loss of a patient shortly after performance of version to terminate protracted labor in a primigravida. Does it not seem more likely that the uterus was ruptured?

MATERNAL MORTALITY IN NEW JERSEY

Year	Living Births	Mortality per thousand living births
1937	55,197	3.2
1942	80,812	1.9
1943	82,356	1.8
1944	75,652	1.6
1945	76,995	1.5
1946	95,064	1.3
1947	105,944	0.9

TABLE 1

Post mortem examination was made in twenty-three cases. In four others the findings at operation made diagnosis clear. There should be a much higher proportion of autopsies.

Those of us who served on the Maternal Welfare Committee under the inspiring leadership of the late Dr. Arthur W. Bingham

† Read before the Annual Meeting of the New Jersey Obstetrical and Gynecological Society, April 7, 1948, Trenton, N. J.

* See Table 1. Note that during the past decade, mortality per thousand deaths has dropped from 3.2 to 0.9.

1. Norton, J. F.: Transactions of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, LVI:131 (1944).

recall the "lessons from a death certificate" which he regularly and regretfully called to the attention of the Society in the JOURNAL. Believing in the great value of these lessons, however painful, this paper presents cases which point the way to strengthen our obstetrical battle front. Though we here turn our thoughts to failures, it is well to realize that in the records of every hospital there are many more instances of dangers met and mothers saved by the courage and skill of their doctors. By greater alertness, better preparation for emergencies and teamwork in meeting them, obstetrical deaths will be brought to the irreducible minimum.

Shown in Tables 2 and 3 are the official assignments of maternal deaths in New Jersey in 1946 and 1947 under divisions prescribed by the U. S. Census Bureau. The figures for 1947 show that, in this state, hemorrhage has

MATERNAL DEATHS—NEW JERSEY—1946

TIME OF DEATH IN RELATION TO DELIVERY

Cause of Death	Total	Ectopic Gestation	During or After Abortion	Before Delivery	During or After Childbirth
		NUMBER			
All Causes	119	10	18	13	78
Infections	43	2	11	0	30
Toxemias	34	..	2	9	23
Eclampsia, Albuminuria and Nephritis—Other Toxemias					
Hemorrhage, Trauma, Shock	34	8	2	3	21
Other and Unspecified Causes	8	0	3	1	4
Ratio:	100%	8%	14%	11%	67%
		PERCENT			
All Causes	100	100	100	100	100
Infection	36.1	20	61.1	..	38.4
Toxemias	28.5	..	11.1	69.2	29.4
Hemorrhage, Trauma, Shock	28.5	80	11.1	23.0	26.9
Other and Unspecified Causes	6.7	..	16.6	6.1	5.1

TABLE 2

MATERNAL MORTALITY—1947

TIME IN RELATION TO DELIVERY

Cause of Death	Total	Ectopic Gestation	During or After Abortion	Before Delivery	During or After Childbirth
All Causes	103	9	13	7	74
Infection	30	2	8	..	20
Toxemia	23	..	1	4	18
Eclampsia, Albuminuria and Nephritis—Other Toxemias					
Hemorrhage, Trauma, Shock	41	7	1	2	31
Other and Unspecified Causes	9	..	3	1	5
		PERCENTAGE			
All Causes	100	100	100	100	100
Infection	29.1	22.2	61.5	..	27.0
Toxemia	22.3	..	7.6	57.1	24.3
Eclampsia, Albuminuria and Nephritis—Other Toxemias					
Hemorrhage, Trauma, Shock	39.8	77.7	7.6	28.5	41.8
Other and Unspecified Causes	8.7	..	23.0	14.2	6.7

Maternal Mortality Rate

$$\frac{103}{105944} \times 1000 = .9$$

TABLE 3

displaced infection as the chief cause of obstetrical fatalities. In Table 4 cases are grouped for consideration of the preventable factors.

MATERNAL DEATHS—NEW JERSEY—1947

Causes	Number	Preventable	Ratio Preventable
Infection	28	10	35%
Toxemia	23	8	33%
Hemorrhage, Shock, etc.	30	17	56%
Cardiac Disease	5	2	40%
Ectopic Gestation	9	4	44%
Others	8	4	50%
	103	45	44%

TABLE 4

INFECTION

A little more than a century ago, after the discoveries of Semmelweis and Oliver Wendell Holmes, the tremendous toll of deaths from puerperal fever began to lessen. Crude antisepsis and relative isolation of obstetrical patients could not, however, keep infection from maintaining the number one place in the roll of causes for maternal death almost to the present time. In the last few years, chemotherapy and antibiotics have led to a significant improvement. There is good evidence that infection can be largely prevented by the prophylactic administration of sulfonamides and penicillin even before delivery in complicated cases and by recognition of the importance of testing the blood values and giving prompt transfusion to combat anemia. Particularly are these measures indicated in prolonged labor with ruptured membranes where intrauterine manipulation has been necessary or where excessive blood loss can be expected to break down natural resistance. Those who practice midwifery should not attend patients with suppurative conditions or visit the homes of febrile patients. Sound technics should be followed in the obstetrical department of every hospital, however small. These should be carefully observed. Morbidity must be promptly recognized and the patient isolated.

In the year past, excluding the infected abortion cases (which still must unfortunately be classed as maternal deaths) there were only twenty fatalities due primarily to sepsis. One half of these were felt to be definitely preventable, even if not inexcusable.

Case No. 1: For example there was the patient in labor for thirty hours, for whom cesarean section was considered necessary. Transperitoneal technic of operation was employed and peritonitis developed. The woman lived four days. Although it was believed that membranes had ruptured only two hours before surgical intervention, it would have been safer to use the extraperitoneal approach to the uterus; also liberal and prompt administration of penicillin might have been effective protection against infection. Instead penicillin was given only in doses of 30,000 units after the temperature rose sharply on the second day after operation.

Case No. 2: Following another cesarean operation the course to dissolution was rapid and post mortem revealed peritonitis and septicemia. The Welch bacillus was cultured. The appendix had been removed at the time of cesarean delivery. Removal of the appendix has long been known to be unwise in conjunction with obstetrical surgery and there can be little question that this death should be laid at the doctor's door.

In two other instances, detailed below, the infection resulted after interference of debatable wisdom.

Case No. 3: After moderately protracted labor, this patient was delivered by manual rotation of the presenting head from a posterior position followed by forceps extraction. The anesthesia was open mask ether. Uterus was atonic and uterine packing was placed, presumably to control hemorrhage. Blood count after delivery showed 3,200,000 red blood cells and 53% hemoglobin. On the second day postpartum, there was marked distention of the abdomen with sharp elevation of temperature to 105. Fever continued until the patient died on the fifth day after delivery. Penicillin was given after the febrile reaction. There was one transfusion along with repeated infusions of dextrose solution. While the use of intra-uterine packing may be debated, there can be little argument against the giving of penicillin promptly where the uterus has been packed and where the patient's blood and strength are depleted. It seems fair to call this a preventable death.

Case No. 4: There was a spontaneous premature rupture of the membranes in the 32nd week of pregnancy. After twelve days, it was decided to induce labor and a Voorhees bag was placed within the cervix. Desired activity of the uterus was stimulated and a premature stillborn baby was delivered. There is no note of difficulty in the third stage of labor and presumably no extraordinary blood loss. A mild temperature rise was noted on the third day postpartum. This apparently subsided because the patient was discharged on the eighth day. Five weeks after delivery, she was readmitted to the hospital with a large tender mass in the left lower quadrant of the abdomen. Operation was undertaken to effect drainage through the abdomen and the patient died in shock soon afterward.

The merit of the use of a Voorhees bag under any circumstances need not be discussed here. But one may certainly question why it was necessary to interfere simply because of the leakage of amniotic fluid. Also, one may criticize the failure to institute therapy with sulfadiazine and penicillin after the intrauterine manipulation.

Before leaving the subject of infection, reference may be made to the improved conditions for operative delivery, when this is necessary, which caudal and spinal anesthesia afford. Inhalation anesthesia, in addition to other disadvantages, causes the operator to hurry, relaxes the uterus, increases blood loss and contributes to contamination of the operative field if the patient is restless during induction or when coming out of anesthesia.

TOXEMIAS

Included in the total of fatalities grouped under the heading "toxemia" were four young primigravidae who became severely ill and died before the fetus attained viability. These women were unknowing victims of chronic nephritis. At least one, however, knew that her blood pressure had been found very high upon an examination which once excluded her from employment. For them, life could not have been long under any circumstances but marriage and pregnancy sealed their doom. Extensive renal damage is incompatible with successful reproduction.

The question of preventability enters only into consideration of the remaining number. Much can be done to reduce the incidence and the severity of toxemias of the last trimester. The overweight patient and the woman who has a history of eclampsia in her family should receive early special attention to insure restricted weight gain. Routine administration of one or two grains of thyroid is helpful where hypothyroidism is evident clinically. Where hypertension is noted early in pregnancy, a program of unusual rest and frequent observation is important. Prompt hospitalization for laboratory workup and vigorous therapy is indicated by concurrence of the three principal signs of pre-eclampsia: retention of body fluids (edema and sharp weight gain), hypertension and albuminuria. Any of these signs may exist alone without significance.

Obstetricians of experience appreciate the startling suddenness with which eclamptic convulsions can develop. Both antepartum and postpartum seizures occur with little or no prodromal manifestations of toxemia. There is great and unexplained variation in the threshold of nervous excitation. I do not share the belief that the careful observer should never have a case of eclampsia on his hands. In the case of my own patient now to be detailed, however, the responsibility and culpability seem inescapable.

Case No. 5: A primigravida, age 22, with a record of several years of service as an army nurse, presented herself early in her pregnancy. Her previous health was good although she had pleurisy in 1945 and appendectomy in 1946. The course of pregnancy was normal through the sixth month, except that blood pressure on December 20, was 134 systolic, in contrast with the previous reading of 114. The patient was instructed to return in three weeks but due to bad weather and her own sense of well being, the examination was put off until January 17 (pregnancy was then in the 32nd week) at which time her blood pressure was 182/90. Her weight was twelve pounds over that at the previous visit. Albumin in heavy cloud, a few granular casts and many white blood cells were noted in the urine. There was marked edema of the lower extremities. Together these findings were typical of pre-eclampsia of rather sudden onset and of real severity. It would have been the part of wisdom to hospitalize this girl without delay. This was proposed but the patient begged to be permitted to rest in bed and measure the fluid intake and output at home. Sedatives were prescribed and arrangements made for re-examination in four days. After three days, the husband reported that she was extremely restless and complaining of epigastric pains and vomiting. Convulsions set in and she was hospitalized in a comatose state with violent convulsions. Blood pressure was 210/110 soon after admission, but during the day, it fell sharply and the patient went into shock. Cyanosis, weak rapid pulse and labored respirations were evidence of her critical condition. Medical consultants diagnosed myocardial failure. During the second twelve hours of hospital care, the patient delivered spontaneously, a stillborn five pound infant. Coma persisted but the pulse quieted and grew stronger. Intravenous dextrose was given at regular intervals and on the second day after delivery, the patient began to take fluids by mouth, to talk and to improve in every way. The blood pressure had mounted, however, and remained high until death eight days after hospital admission. No convulsions were noted after the emptying of the uterus. In the last days, the picture was that of pulmonary congestion and the temperature was very much elevated. At autopsy, extensive

bronchopneumonia and acute glomerular nephritis were the outstanding findings.

No one will question that this unhappy result might have been prevented by immediately placing this woman under observation and acting quickly to terminate the pregnancy.

Also voted preventable by our committee and deserving mention are two cases where death followed a few hours after cesarean section for eclampsia, each operation having been performed soon after convulsions occurred and without trial of medical treatment.

In other fatal cases the patients had too little prenatal supervision and indifferent management. Eclampsia is a serious condition which taxes the resources of the nursing staff and the skill of doctors to the utmost.

I cannot leave the subject without recommendation of postpartum sterilization when a multiparous woman has been hypertensive and increasingly toxic in repeated pregnancies. Her trouble is surely progressive peripheral vascular disease with some renal deterioration. Pregnancy reduces her expectancy of health and life even if the threat of death from eclampsia or cerebral hemorrhage may be averted. The procedure of partial tubal resection is practically without risk and when performed a day or two after delivery there need be no prolongation of hospital stay. The patient is extremely grateful and for the conscientious doctor there is much satisfaction in safeguarding a woman with important family responsibilities.

HEMORRHAGE, SHOCK AND ACCIDENTS OF LABOR

In management of dystocia and other complications of labor, the obstetrician carries heavy responsibility and must make momentous decisions. Postpartum hemorrhage can and does occur without warning or explanation. In one of our best hospitals three young women recently lost their lives in one year from this cause. Certainly there will be no acceptance of the thesis that postpartum hemorrhage is always due to mismanagement of labor.

In two of the three cases referred to, the first baby was delivered by the patient's effort after short labor. Separation of the placenta was spontaneous also. Efforts to control bleeding seemed to no avail and replacement of blood and infusion of dextrose in one case to a total of 5000 cubic centimeters could not sustain strength and life. Uterine packing was used in two of these cases but in one the patient was *in extremis* when the consultant placed the packing.

Because of the high standard of practice in the hospital mentioned and the competence of the doctors in charge, these unhappy results were not voted preventable. They remind us that the danger of serious postpartum bleeding should be in the mind of every doctor who practices obstetrics. Every intern assigned to obstetrics should be promptly instructed in the immediate management of bleeding because blood loss can be so profuse in the first moments after delivery that immediate action is necessary. Often no consultation or assistance can be arranged in time to avert serious depletion and possible disaster. Increasing attention is being directed to the importance of the hour after delivery, the "fourth stage of labor". Neglect of proper caution at this time resulted in several deaths.

Case No. 6: In a home delivery, the physician left for his office immediately after expression of the placenta. No anesthesia had been given. The doctor was called an hour later and was informed that the patient was bleeding excessively and in poor condition. He visited her again and directed her removal by ambulance to the hospital. Death won the race.

Case No. 7: A 39 year old primigravida was delivered by forceps under chloroform anesthesia. The placenta separated without reported difficulty but the patient died two hours later from uncontrolled blood loss attributed to multiple uterine fibroids. There was no replacement of blood; in fact, no supportive infusion of any kind. Packing of the uterus was not attempted.

This death is considered preventable because the presence of the uterine fibroids must have been known and special preparation should have been made to combat poor contractility and likely bleeding.

Case No. 8: In a small hospital with no obstetrical department and no blood bank, a young woman died at 4 a. m., two hours after manual removal of the placenta. There is nothing to indicate that measures were taken to treat shock or replace the blood loss.

Speculation concerning cause of uncontrolled bleeding must include the possibility of

incomplete removal of the placenta or of trauma of the uterus.

Another cause of postpartum hemorrhage is illustrated by a field physician's case report which seems worthy of quotation in full:

Case No. 9: Patient was a 28 year old primipara. Labor commenced spontaneously at 3 a. m., June 3. Progress of labor was uneventful with spontaneous rupture of the membranes four hours afterwards. At 7 a. m. the patient delivered spontaneously a normal term infant. During the third stage of labor which lasted thirteen minutes, the placenta was expressed by modified Crede maneuver. During this procedure there was a moderate amount of bright red bleeding. The patient left the labor room immediately. About 45 minutes later profuse bleeding was noted. The fundus was massaged and the patient was given ergaloid. She went into shock rapidly. Attempts were made to obtain blood and plasma but without success. At this time, it was impossible to palpate the fundus. Vaginal examination was made. Partial inversion of the uterus was found and reduced but the patient died.

This case illustrates the importance of having available blood and plasma for the immediate treatment of shock due to postpartum hemorrhage. The entire management of the third stage of labor from her immediate postpartum period was inadequate. This patient's life could have been saved and this death is definitely a preventable one.

It is well to note that in the city where this tragedy took place, measures have been taken to insure a constant and adequate supply of blood for transfusion. This can be of little assistance of course, without the cooperation of physicians in having each patient's blood tested for type and Rh factor before labor.

One final instance of fatal hemorrhage, which caused death of a patient four hours after cesarean section will complete this gloomy recital.

Case No. 10: The patient was previously operated upon for disproportion and the secondary cesarean proceeded without unusual difficulty, nothing remarkable being noted about the placental implantation. It is impossible to judge whether the patient received adequate nursing following the operation but often, following abdominal operation, massage of the fundus is neglected. The serious depletion of this patient's strength was apparently not recognized in time to arrange blood replacement.

There were twenty-six deaths following cesarean operation in New Jersey in 1946. Although the mortality attending this valuable operation is not high, it can be made still lower. There is an interesting variation in the frequency of cesarean operation in the hospitals of the state. Statistics were collected for 1940 and 1941 and findings discussed in an article [2] entitled, "The Cesarean Operation and the New Jersey Maternal Welfare Report". The concluding paragraph seems to deserve repetition at this time.

"By whom should cesareans be done? This is a special operation presenting more problems, especially in secondary cases, than is frequently realized. Ideally the obstetrical surgeon is the man for the job. Extensive obstetrical experience plus sound surgical training and skill combine to accomplish best results. The general surgeon performing half a dozen cesareans a year and acquainted with only the classical technic should pass on the responsibility in complicated or 'neglected' cases when it is possible to do so."

In some hospitals, the number of cesareans is too few, of course, to permit development of an obstetrical surgeon. Much, however, can be done by cooperation between the surgical and obstetrical departments of the smaller general hospitals.

There were four fatal cases in which rupture of the uterus was definitely known. One was a multiparous woman who collapsed during normal labor. Operation showed the fetus in the general peritoneal cavity. Another "grand multipara" bled freely after completing expulsion of the baby and placenta. Rupture of the lower uterine segment was suspected and diagnosed by intra-uterine palpation. These accidents will happen and we can only be ever watchful and ready to act. The third case deserves description in detail.

Case No. 11: Antepartum course was normal. Membranes ruptured and the patient was observed at home, where arrangements for delivery had been made. Labor continued for 36 hours, but no vaginal examination was made. Signs of shock developed and the patient was hospitalized. Upon admission, classical signs of ruptured uterus and intra-peritoneal hemorrhage were noted. Vaginal examination showed the fetal head in mid pelvis, face presentation, cervix fully dilated. Forceps delivery was accomplished without anesthesia. After extraction of the stillborn eight pound child, the placenta was found free in the vagina. After endeavoring by repeated transfusions to improve the patient's condition, laparotomy was performed twelve

2. MacKenzie, R. A.: JOURNAL of The Medical Society of New Jersey, 39:280 (May 1942).

hours after the hospital admission. Hysterectomy was necessary because of the extensive rupture. The patient failed to rally. The field physician writes, "This case is one of unrecognized abnormal presentation of a large baby resulting in prolonged labor and spontaneous rupture of the uterus. This must be classed as a preventable death".

The fourth case is that of trauma to the uterus caused by over enthusiastic interference in a case of antepartum hemorrhage.

Case No. 12: In the seventh month of this pregnancy onset of labor was accompanied by moderate bleeding. Partial abruption of the placenta seemed certain. Bleeding increased and when the cervix was three fingers dilated, version was performed and a lifeless 3½ pound baby extracted. The mother died 1½ hours later. Post mortem examination showed laceration of the cervix extending into the left broad ligament with retro-peritoneal hematoma.

Mismanagement in this case is so obvious that discussion is hardly interesting. Puncture of the membranes, an abdominal binder, transfusion and non-interference would have saved the patient's life. And here is another case in which rupture of the uterus is presumed but not proved:

Case No. 13: Multigravida at term, unobserved during pregnancy until hospital admission at 3 p. m. On the following day, after x-ray revealed a single fetus with malformation (anencephalus) the membranes were ruptured at 10:30 a. m. and 6000 cubic centimeters of amniotic fluid evacuated. Soon after 1 p. m. delivery was accomplished by version and breech extraction—a procedure described as "difficult". The patient died on the table, placenta not separated. Interesting is the fact that the chief obstetrician of the hospital was responsible for the interference in this case and must have known of the fetal monstrosity. The attending anesthesiologist gave first an intra-spinal (saddle block) injection of pontocaine, then inhalation anesthesia of both ether and chloroform.

Of all the cases reviewed this one is most difficult to understand. No emergency was involved. Puncture of the amniotic sac was indicated but subsequent interference cannot be justified. Just the release of such a large amount of fluid from the uterus can cause shock. The patient should have been given supportive treatment including an abdominal binder and left alone. Use of the combined anesthesia and internal podalic version (probably before the cervix was dilated) can have no defense.

ECTOPIC GESTATION

It is only necessary to note the considerable number. The story is obvious: diagnosis was made too late for successful treatment. One of these cases was a true abdominal pregnancy.

CARDIAC DISEASE

There were five deaths of cardiacs. Two of them did not live to give birth to the child for whom undoubtedly they wished a happier life than their own. There is reason to think that better treatment could have altered the outcome in two of the five cases. One of these patients had a therapeutic abortion in her first pregnancy. Like arrested pulmonary tuberculosis, inactive rheumatic heart disease may not interfere at all with the course of pregnancy nor be the worse afterward. But these deaths attest that interruption of pregnancy for severe heart disease and decompensation may upon occasion be thoroughly justified.

OTHER CAUSES

Included in this group are three cases of death from acute suppurative appendicitis, the earliest coincident with 3½ months pregnancy, the latest occurring in the 7th month. In one case operation was delayed more than twelve hours after hospital admission and diagnosis. It seems probable that more prompt surgical intervention would have saved two lives.

Here also are three fatalities attributed to anesthesia. Every year finds several of these among our reports. Intra-spinal injection of pontocaine in unnecessarily large dosage definitely caused a woman's death in 1946. Spinal anesthesia is supposed to have been responsible for the loss of a patient in 1947 also, death occurring one half hour after completion of a cesarean operation. In two other cases the trouble was aspiration of vomitus during ether anesthesia. In one it was small satisfaction to the doctor to accomplish a breech extraction successfully only to have the mother stop breathing a moment later. These preventable deaths illustrate only one of the dangers of general anesthesia. For the multipara who has had a meal shortly before onset of labor it is

better to give no anesthesia. For every patient infiltration of the perineum or pudendal block may well replace inhalation anesthesia for episiotomy and repair. Inducing an excited woman to sleep with nitrous oxide or ether is extremely difficult. Pre-anesthetic medication is usually neglected. The stomach is seldom empty. Dependence upon an untrained doctor or nurse to give the anesthesia is too often necessary.

EMBOLISM

In the 1947 reports there were three deaths which were sudden and without prior indication of untoward development. Pulmonary embolism was the diagnosis in two. One occurred on the fourth day following uncomplicated delivery. Another on the ninth day after normal delivery—one day after leaving the hospital. The third woman had rapid spontaneous delivery in a hospital before her doctor arrived. There was no morbidity postpartum and she had been active and apparently well at home for two weeks before the sudden fatal seizure (twenty-one days after the birth of her child). The certificate in this case was signed "coronary occlusion". These unhappy results were not deemed preventable. It is interesting to note the absence of dystocia or other unusual aspect of pregnancy or labor in these cases. Early ambulation was permitted in at least one. It does not appear that we can offer women complete protection against embolic phenomena. But we must watch for the Homan's sign to detect phlebothrombosis of the leg early enough to institute treatment.

THE KEY TO BETTER OBSTETRICS

Nearly ten years ago Dr. Charles A. Gordon[3] of Brooklyn, chairman of the Maternal Welfare Committee of the Medical Society of Kings County wrote these significant remarks. "Post graduate education is the master key to happier results. The problem will be solved only when the education of everyone who practices obstetrics is made continuous. Not by refresher courses and lecture which, though desirable, are not effective. Not by insisting that the general practitioner take postgraduate courses, for he will not, nor can he get what he needs. Not by belaboring him with statistics, or viewing with alarm preventability percentages, but by providing for him opportunities for easy continuous contact with the form and substance of good obstetrics in well staffed hospitals."

501 Grand Avenue

NEW JERSEY ACADEMY OF GENERAL PRACTICE

At its last meeting, the New Jersey Academy of General Practice adopted the following:

Whereas, The backbone of all medical practice is the general practitioner and his service to the community and

Whereas, The future determination of the practice of medicine as we now understand it, depends on the general practitioner. Whether it will be subjected to government control, or remain independent depends on whether the general practitioner's importance is recognized by all hospitals inasmuch as the majority of all patients, including obstetrical cases, are patients of general practitioners and

Whereas, The American Medical Association has recommended that a department of general practice be established in all hospitals, and has already created such a section within the A.M.A.; and whereas a section of general practice has been created by the Academy of Medicine of Northern New Jersey, in recognition of the general practitioner,

Therefore, be it resolved that all hospitals receiving municipal or state, or public support (with the exception of tuberculosis and mental hospitals) show their interest and sincerity in this matter by creating departments of general practice, so that recognized doctors of medicine may be able to send patients to all hospitals regardless of their hospital affiliation; and practice in them according to their ability.

And be it further resolved that the New Jersey Chapter of the Academy urge the national office to promote such a policy through the cooperation of the American Hospital Association and the American College of Surgeons and the appropriate councils of the American Medical Association.

3. Gordon, C. A.: New York State Journal of Medicine, 39:535 (March 15, 1939).

NON-ICTERIC HEPATITIS: A REPORT OF SPORADICALLY OCCURRING CASES SIMULATING INTESTINAL GRIPPE

Harvey E. Nussbaum, M.D., and Edward N. Comando, M.D., Newark, N. J.

During World War II the disease, infectious hepatitis, came into great prominence. Both the icteric and non-icteric forms were recognized.[1] Since then civilian epidemics have similarly been characterized by both forms of the disease.[2] Only recently have sporadic cases of the non-icteric form been reported and its importance elucidated.[3] Barker and Capps [4] described the gastro-intestinal symptomatology to be sought in making the diagnosis of hepatitis. The early invasive symptoms are similar to those of any of the virus diseases. Some of the cases never go on to becoming icteric.

During the winter of 1948-1949, we saw many cases of an illness which would ordinarily have been diagnosed as grippe, or intestinal grippe or "virus-X". It was found, however, that some of the patients had a slight hepatomegaly and therefore further investigation of liver function was instituted. By this means, we found that liver involvement was present in a large proportion of "grippe" seen by us. Patients of both sexes from ages 8 to 60 have been seen. They represented various social and economic levels. One patient was post-operative, and another eight months pregnant. Both office technicians performing laboratory procedures on urines of the patients came down with the illness.

The laboratory test found most useful as a screening device was the methylene blue test for bilirubinuria as described by Myers.[5] This simple office procedure can be performed by anyone who can do a urinalysis. It consists of adding 0.25 per cent aqueous solution of methylene blue chloride to 5 cubic centimeters of urine drop by drop. If a green color develops and persists after three drops, but turns blue after four drops, the test is mildly positive. If it persists after four drops or more, it is definitely positive. This test produces positive results before the serum bilirubin increases, or before manifest symptoms of liver damage appear. The reaction is immediate and is not altered by temperature, acidity, alkalinity or amount of yellow urinary pigment present. Because of the simplicity of this test, it can become as routine a part of urinalysis as those for albumin or glucose. On patients with a positive methylene blue test, or on any in whom the suspicion was strong in spite of a negative test, other tests of liver function were performed. The thymol turbidity test, bromsulphalein retention, icterus index, cephalin flocculation were performed on selected cases.

The symptoms were most commonly those seen in the form of virus infections diagnosed as "intestinal grippe". As a matter of fact, some patients volunteered the diagnosis when confronted with the question. The onset was sudden in most cases. A few had premonitory upper respiratory symptoms consisting of sore throat and rhinitis, and severe frontal headaches. Early symptoms in a few cases consisted of faintness and sudden flashes of vertigo. Many had an onset with severe upper abdominal pain; some with radiation to the right subscapular region. All complained of some abdominal queaziness during the course of the illness. This was especially present before the patient was placed at bed rest, or if he became ambulatory too soon. It was an abdominal sensation which the patient found difficult to describe but which was sufficiently uncomfortable to report to the doctor. Short periods of diarrhea were found in some, and nausea frequently. Those patients with severe abdominal pain had recurrences of the pain even at bed rest. Most patients complained of malaise and aching muscles, but these together with other symptoms were completely relieved when in bed.

The liver was palpably enlarged in more than

1. Barker, M. H. *et. al.*: Journal of the American Medical Association, 128:997 (Aug. 4, 1945).
2. Neefe, J. R.: Medical Clinics of North America, 30:1407 (November 1946).
3. Zimmerman, H., and Thomas, L.: American Journal of Medical Sciences, 216:545 (November 1948).
4. Barker, M. H., and Capps, R. B.: Review of Gastroenterology, 14:9 (January 1947).
5. Myers, C. P.: Journal of Industrial Hygiene, 27:52 (February 1945).

half of the cases. Splenomegaly was not found. There was tenderness in the right upper quadrant whether or not the liver was enlarged. In many of these there was associated muscle spasm. There was no lymphadenopathy. Fever was not an outstanding finding, but a few reached 103 during the first days of illness.

Blood smears were examined and while atypical large lymphocytes were seen, none of the smears were characteristic of infectious mononucleosis.[6]

When seen soon after the onset of the illness, all of our patients showed a positive methylene blue test for bilirubinuria. Those seen several days after the onset may have given negative tests, but then the thymol turbidity showed an elevation. When a case was observed from the onset, it was not uncommon to find a previously positive urine becoming negative after a few days; but serial thymol turbidity examinations showed a progressive increase in the amount of liver involvement. No patient developed clinical icterus. Icteric indices varied from six to fifteen.

The following brief summaries will serve to indicate the type of symptomatology most frequently encountered:

1. Female, age twenty-eight, white, laboratory technician had been doing urine tests on non-icteric hepatitis. She developed vague abdominal abnormal sensation and diarrhea of two days' duration. Urine was examined and bilirubinuria found positive. Thymol turbidity, 6.0. Liver not palpable but tenderness in right upper quadrant. Patient ambulatory. Urine remained positive for two weeks.

2. Male, age 50, white. He had a sudden onset with waves of vertigo and momentary sensation of fainting. Vague abdominal sensation of peristalsis; occasional sudden flash of nausea. Liver, two fingers palpable. Methylene blue test positive. Thymol turbidity 12.5. Placed at bed rest after which symptomatology completely disappeared. After two weeks of bed rest, liver one finger palpable. Thymol turbidity 5.5.

3. Female, age thirty-one, white, a housekeeper. History of "grippe" for three days with a temperature of 101. When seen by one of us (ENC) temperature was normal, and physical examination was negative except for enlargement of the left lobe of the liver two fingers. Pain in the left shoulder when palpating the liver on deep inspiration. All subjective symptoms absent thereafter. Urine positive for bilirubin. Thymol turbidity 7.0. Patient placed at bed rest. Serial thymol turbidity revealed 12.0, 10.9, 9.4 in the ensuing four weeks. Patient allowed up and about after three weeks. Liver not palpable.

4. Male, merchant, 45 years old, had a sudden onset of severe abdominal cramps. Malaise and muscle aching. No elevation in temperature. Methylene blue test positive. Repeated in twenty-four hours, negative. Thymol turbidity test 7.4. No hepatomegaly. Patient placed at bed rest for one week.

5. A housewife, age 40, complained of sudden pain in epigastrium. Three watery stools, severe weakness and dizziness. Temperature 100.6, pulse 88, respirations 20. Methylene blue test positive. Thymol turbidity test 7.0. When re-examined forty-eight hours later, methylene blue test negative. Malaise, vertigo, weakness, all present for two weeks. Patient unable because of economic reasons to maintain complete bed rest. Liver palpable one to two finger breadths below the right costal margin with tenderness.

6. A 38-year old housewife had had an operation for perineorrhaphy, ventral suspension, and coccygectomy. No evidence of gall bladder disease was found. Two weeks later, she complained of "stretching" pain in the right upper quadrant of the abdomen radiating to the right subscapular region, with nausea, vomiting, weakness and vertigo. Liver was palpable two finger breadths below the right costal margin in the anterior axillary line with pain in the right shoulder on deep inspiration. Temperature was 101 and reached 103 in twenty-four hours. The next day it had returned to normal where it remained. The urine was positive for bilirubin. The thymol turbidity was 4.7. The patient was kept at bed rest but the weakness remained. Pain in the right upper abdominal quadrant recurred during the next two weeks. The urine returned to a negative methylene blue test in one week. Thymol turbidity two weeks after the onset was 7.0. Subsequently the patient developed acute sinusitis which responded to treatment in twenty-four hours. One week later, the thymol turbidity was 12.0, but the patient was much improved. The liver was still palpable. Six weeks after the onset the thymol turbidity returned to 9.0, and the patient felt much improved but weak and unwilling to perform her full household duties.

The entity, non-icteric hepatitis, is by no means new or strange. Its occurrence is well documented and recognized,[1,2,3,4,7] In all epidemics of infectious hepatitis with jaundice, a variable proportion of non-icteric cases is found. Neefe,[2] in discussing one such epidemic in a summer camp in Pennsylvania, found that the incidence of the non-icteric type varied with the age group. Those over thirty years of age seemed to be most prone to have that form. This represented to him an increased resistance to infection in the older age group. Zimmerman and Thomas[3] reported nine cases

6. DeMarsh, Q., and Alt, H.: Journal of Laboratory & Clinical Medicine, 32:320 (March 1947).
7. Capps, R. B.: Cincinnati Journal of Medicine, 28:161 (March 1947).

of anicteric hepatitis occurring sporadically, although during the time of their report, more than twice that number of the ordinary icteric hepatitis were seen. Theirs was a new experience since it was the first reported evidence of non-icteric hepatitis occurring sporadically. Our report differs slightly since our cases were seen during a time when not a single case with jaundice was found.

The importance of non-icteric hepatitis has been recognized. There is the public health importance, for one, of a widespread communicable disease. These cases can be the source of epidemics of the icteric form.[2] Secondly, the non-icteric form in itself, while undoubtedly representing a mild form of the disease, must be considered important from a morbidity viewpoint. None of our patients after two months have yet returned to completely normal liver function as represented by the thymol turbidity test. Further and future follow-up will ultimately determine the long-range effects of this mild disease.

Having once developed a high sense of suspicion, the ease of recognition by doing a simple urine test places the diagnosis within the reach of any practitioner. Once having established the presence of bilirubinuria, other confirmatory diagnostic tests can then be procured. If the case is seen late, then the urine test will have already returned to normal, and the other tests of liver function will have to be performed. The great incidence of this disease will then readily be revealed.

There have been prevalent for the past several years a resurgence of cases of "intestinal grippe". These have, for the most part, consisted of ill defined gastro-intestinal upset of several days' duration followed by weeks of convalescence. The latter has been accepted as part of the disease syndrome and as a common aftermath of virus infection in general. It can now be a matter of speculation whether these cases of so called "intestinal grippe" were not unrecognized cases of non-icteric hepatitis. The manifestations of fatigue and mild non-localizing abdominal discomfiture, malaise, fever, headaches, aching muscles, cramps, right upper quadrant tenderness over a prolonged period of time are compatible with this disease. Surely it is more reasonable to assume this than to try rationally to explain two months of convalescence from a three day mild acute "intestinal grippe". Since we have been investigating liver function in "intestinal grippe", there has been no evidence of prolonged convalescence without our also finding liver dysfunction.

FINDINGS IN 25 CASES OF NON-ICTERIC HEPATITIS

Sign or Symptom	*Positive*	*Absent*
Malaise	23	2
Abdominal tenderness and/or pain	23	2
Thymol turbidity over 5	22	3
Icterus index over 8	21	4
Nausea	18	7
Vertigo and/or faintness	16	9
Myalgia	15	10
Hepatomegaly	15	10
Headache	11	14
Diarrhea	11	14
Vomiting	6	19
Sore throat and/or coryza	5	20
Bilirubinuria	21	4

Our therapy consisted essentially of bed rest, and a high protein diet. Some patients received methionine and choline. Of the three, it was found that bed rest alone relieved almost all the patients of their symptomatology immediately. All were at least improved lying down.

SUMMARY

A sporadic form of non-icteric hepatitis is presented. It is apparently a common unrecognized ailment. It masquerades primarily as a form of "intestinal grippe," but has constantly shown to present certain features of liver dysfunction, namely, early bilirubinuria, elevated thymol turbidity test, bromsulfalein retention, and slight elevation of icteric index. The most prominent symptomatology has been gastro-intestinal, and described by the patient as pain across the epigastrium, or "abdominal queaziness". There has also been vertigo, sensation of faintness, muscular aches, malaise, fever, nausea, headaches and of lesser frequency, diarrhea and vomiting. The liver is slightly enlarged in many cases. Of great importance is the fact that the liver function does not soon return to normal.

695 Clinton Avenue

CO-EXISTENT GASTRO-INTESTINAL BENIGN AND CARCINOMATOSIS LESIONS

Frank A. Marshall, M.D., Weehawken, N. J.

Diagnosis of gastro-intestinal pathology based on clinical symptoms and physical examination of the abdomen is accurate in only a few fairly well defined syndromes. Even then, other co-existing pathology can be overlooked or obscured by the more prominent, but less significant, symptoms and signs.

Multiple synchronous primary carcinomas are not infrequent, in spite of rather rigid criteria to exclude a malignancy and its metastases. Emphasis is placed again upon use of the aids to clinical diagnosis, including *repeated* x-ray examinations, gastroscopic and chemical examinations and biopsies.

The diagnostic ideal of explaining all symptoms on the basis of a single lesion so commonly taught in medical schools will require revision as improved diagnostic methods reveal quiescent or obscured lesions. Mass surveys will further assist in discovering these lesions prior to onset of any symptoms. The shifting of the age of the population to higher age levels will permit development of more disease of diverse nature and in different organs and locations during these lengthened life spans. Chronic "ulcer" cases can thus easily exist with cardiac lesions during advancing age. In fact, an excessively bleeding ulcer can provoke the onset of coronary occlusion in an older individual. A high index of suspicion of multiple lesions will materially assist in their discovery, particularly if symptoms and signs are not readily explained by the initial diagnosis and if symptoms and signs persist in spite of adequate medical and surgical treatment.

CASE REPORT

A male, age 58, complained of "indigestion and stomach trouble" for three months prior to his visit. This discomfort was relieved by "Carter's Liver Pills" and "Amphogel", both self prescribed and urged upon by friends. Occasionally, epigastric pain occurred, usually one hour after meals, relieved by Amphogel. He had lost 30 pounds during the six months prior to his first visit. Black stools were never noticed.

Physical examination revealed a sallow complexioned male whose adipose tissue had disappeared and whose gaunt frame was clothed in loose overhanging skin. He appeared to totter when walking. Except for bilateral arcus senilis and fetor oris with accompanying oral infection and poor dental hygiene, the head and neck were negative.

At the cardiac apex, a soft systolic murmur, not transmitted beyond the anterior axillary line, was heard, suggestive of a hemic origin. Heart sounds were of fair intensity but of poor quality. Systolic blood pressure was 80. Pulse was 104. Temperature was normal.

Abdomen was of scaphoid type with moderate tenderness to the right of the midline in his epigastrium. The abdominal wall had moderate tone, revealed normal intestinal sounds.

Laboratory reports: Hemoglobin 40 per cent (6.8 grams per 100 cubic centimeters); red cell count was 2,200,000; white cells 9,400; a definite hypochromic type of red cell with central pallor was noted on smear. Leucocytes were within normal range. Wassermann was negative.

Gastric lavage resulted in evacuation of coffee ground type material with no odor except that of acid. No lactic acid was noted. Free hydrochloric acid was 22. Total acidity was 40.

Subsequent progress: He received two transfusions totalling 1000 cubic centimeters of citrated blood. This improved the patient considerably raising his hemoglobin to 60 per cent (9.4 grams) and his blood pressure to 104/60. He now walked without staggering.

He received a smooth diet, tincture of belladonna and antacids. Two months later, he first complained of slight distress behind lower sternum upon eating which increased for the next month causing him to vomit occasionally to obtain relief. A few weeks later, his hematocrit was 38 and blood sedimentation rate revealed 16,26,42,50 millimeter drops at 15 minute intervals. He improved subjectively so well that he returned to work at the end of the month. A small nodule in the midline in the epigastrium was now noted for the first time. It was tender and sharply circumscribed. For the next month his swallowing improved but he vomited "streaks of blood" on one occasion. A month later, he was readmitted to North Hudson Hospital for endoscopic study by Dr. A. Milanesi who confirmed the diagnosis of an infiltrating lesion of the lower esophagus.

Biopsy report of esophageal tissue revealed: "small groups of acini lined with atypical epithelium cells, that in places show signs of anaplasia". A nodule from the epigastrium showed "fibrous connective tissue with a very cellular infiltration of the glandular acini; in places these cells are of an anaplastic epithelial type". Pathological diagnosis: "Metastatic adeno-carcinoma".

Following discharge from hospital, he tried his self medication program again. He died suddenly a month later while ambulant.

X-ray surveys: The first series revealed a definitely deformed duodenal cap which showed improvement on subsequent series. (Figure 1.)

A diverticulum of the jejunum was clearly demonstrated. (Figure 2.) Slight rigidity and irregularity of the contours of the lumen of the lower three inches of the esophagus were noted.

The second series, eight weeks later, indicated an improvement in the irregularity of the duodenal cap, but the esophageal area showed an ulcer-like projection on the inferior medial border near its gastric junction. (Figure 3.) Two months later, plates revealed definitely advanced infiltration of the lower third of the esophagus with surprisingly little interference with the flow of barium through its lumen. (Figure 4.) The duodenal cap was now diminutive, with relatively smooth contours.



Fig. 1



Fig. 2

Figure 1. Clover leaf shaped duodenal cap deformity clearly demonstrated; October 1947.

Figure 2. Oblique view illustrates the jejunal diverticulum and very early beginning rigidity of the lower esophagus; September 1947.

Six weeks later, films of the esophageal area showed marked narrowing and irregularity of the lumen in the lower third with dilatation of the esophagus above. Infiltration of the cardiac end of the stomach was now evident. The small projection from the esophagus near its junction with the stomach was just barely discernible.

COMMENT

The difficulty in diagnosis of gastro-enterologic pathology by means of clinical symptoms alone is demonstrated in this case. This patient fortunately was hyposensitive; therefore, his symptoms were not exaggerated, but represented organic disease. Persistent questioning failed to disclose any difficulty in deglutition for almost four months from the date of definite x-ray evidence of disease.

The presence of the duodenal and later esophageal ulcer further confused the clinical syndrome. Improvement following therapy could easily have lulled one into confidence in the benign nature of the underlying pathology. This patient felt well enough to insist upon returning to work for several weeks and to permit contemplation of surgical removal of esophageal lesion.

Considering the length and the embryologic evolution of the gastro-intestinal tract, it is surprising that multiple lesions are not of more frequent occurrence.

Fig. 3

Fig. 4

Figure 3. X-ray two months later reveals an improved duodenal cap and an ulcer niche on the inferior medial border of the esophagus close to its junction with the stomach.

Figure 4. Four months after initial examination carcinoma has narrowed esophageal lumen at place sufficiently to produce clinical and x-ray evidence of obstruction.

CONCLUSIONS

1. A case is presented in which the patient had simultaneously (a) an early duodenal ulcer, (b) jejunal diverticulum, (c) carcinoma of the lower esophagus with ulcer and (d) carcinomatous infiltration of the cardia, probably an extension from the esophagus.

2. The benign ulcer improved under medication while the carcinoma progressed.

3. Biopsy of an excised lymph node from the midline in the epigastrium revealed the nature of the esophageal carcinoma.

4. With the increase in geriatric patients accompanying an aging of our population, a high index of suspicion should be entertained for multiple lesions, particularly when dealing with the vagaries of the gastro-intestinal tract.

2202 Palisade Avenue

CARCINOMA OF THE THYROID *

Eugene V. Parsonnet, M.D., Newark, N. J.

Carcinoma of the thyroid, during the past decade, has become a subject of frequent discussion. I am here presenting a small group of cases that is remarkable because of the extremely high incidence of carcinoma. This study emphasizes the importance of early and radical surgical removal of all thyroid nodules.

This series of cases comprises 74 personally observed and surgically treated patients with goiter. There were 20 cases of diffuse thyroid hyperplasia and 54 with adenomata, multiple or single. Of this number, ten were proved cases of carcinoma. All of these carcinomas occurred in patients with nodular thyroids which were palpable on physical examination. In five, a solitary adenoma was found, and in the other five there were multiple nodules. Only three presented toxic symptoms.

It has been pointed out by numerous authors that the presence or absence of a thyrotoxic factor has no bearing on the development of neoplastic changes. When an increase in basal metabolism exists, it may be that this is the result of the coexisting lesion, rather than from the malignancy *per se*. The reported incidence of carcinoma of the thyroid varies greatly, but it is rarely found in patients with hyperplastic goiter.

Carcinoma of the thyroid is more commonly found in women than in men. Also, the incidence of the benign lesion in women far outnumbers that in men. However, for any equal given number of cases in both sexes, there is a *greater tendency for malignant change among males*. All the patients in this series were female.

The age group is similar to that of carcinoma elsewhere. In our series, the youngest patient was 29 and the oldest 74; seven of the ten cases were between 30 and 50.

Classification of carcinoma of the thyroid for prognostic and therapeutic purposes is based first on growth characteristics, and second, on the microscopic architecture. A prominent feature is that many are of a low grade of malignancy.

PAPILLARY ADENOCARCINOMA

This lesion is characterized by a papilliferous structure and arises either in an adenoma or in the gland substance proper. Commonly, the lesion spreads by extension through the lymph channels, and this characteristic (with the ensuing distension of the gland capsule) adds to the hardness associated with carcinoma. Papillary adenocarcinoma has also been found to be most radiosensitive.

How about aberrant thyroid gland and malignancy? My findings substantiate the opinions of several authors; that is, unless proved otherwise, a tumor in an aberrant location must be considered to be a metastasis to a lymph gland from a primary lesion of the homolateral thyroid lobe. For this reason, all nodules noticed distant from the main portion of the thyroid gland exhibiting the characteristic sign of hardness must be considered as potentially malignant and the lobe on this side should be thoroughly explored for the presence of adenomata.

ADENOCARCINOMA

The second type of malignancy is adenocarcinoma developing in an adenoma. This arises from within a benign adenoma. Most of such lesions are also of low grade malignancy. The usual tendency for spread is to metastasize by way of the blood stream, but when capsular invasion takes place, lymphatic spread also occurs. This type of tumor, although less radio-sensitive than the papillary form, also responds well to radiation.

DIFFUSE ADENOCARCINOMA

This may arise in a thyroid nodule or in an apparently normal gland. It has a wide variety of histopathologic change, is commonly anaplastic and may simulate the picture of a sarcoma. It is a fulminating lesion and metastasizes rapidly with a pronounced tendency for invasion and is least radio-sensitive.

* Read before the third International Congress against Cancer, Havana, Cuba, May 5, 1948.

Other types of malignant thyroid lesions include squamous-epithelioma and sarcoma, with which I have had no experience.

METASTASES

The method of spread and ultimate site of metastasis have been carefully classified by Pemberton and Lovelace.[1] These sites in order of frequency are: cervical lymph glands, lungs, liver and bones. Hardly any part of the body is exempt from involvement. The rich thyroid blood supply and the diffuse structure of the cervical lymphatics explain this tendency. Yet, it must be borne in mind, that until blood vessel involvement or capsular encroachment takes place, the tendency is for such lesions to remain localized. My own experience differs somewhat from that commonly cited by other writers. In the group of cases coming under my observation, I have been unable to prove that the papillary carcinoma or the adenocarcinoma have any especial predilection for spread either by lymphatic involvement or blood vessel metastasis.

DIAGNOSIS

The pathognomonic signs are hardness, fixation and hoarseness. All these are, in part, due to the tendency for capsular involvement and lymphatic spread, which causes tension on the capsule and fixation to the neighboring lymphatics or encroachment on the recurrent laryngeal nerve. Although any one, or a combination of these signs may occur in a benign tumor, the finding of any two is of grave prognostic significance. An additional and very suggestive symptom is a history of the recent development of a tumor or the recent increase in size of a pre-existing nodule.

As with all forms of carcinoma, diagnosis lies ultimately with the pathologist. He is the final arbiter. In the hospital where these cases were studied (Newark Beth Israel Hospital), the pathologist, Dr. William Antopol, has taken the position that the burden of proof is on the observer who diagnoses malignancy. Or, to put it another way when in doubt, they lean towards a verdict of benignity. On the whole, I am in accord with this point of view. Thus, two of my patients have not been included in this series, although their thyroid tumors did show cellular areas with occasional mitotic figures. These cases, of course, are being closely followed.

1. Pemberton, J. de J., and Lovelace, W. R.: The Surgical Clinics of North America, 21:1037 (August 1941).

PROGNOSIS

As in all malignant lesions, the earlier the diagnosis, the more favorable the outcome. The best prognosis is in that group in which the surgeon is apprised of the true condition by the pathologist. The next most favorable are those that are not suspected pre-operatively, but in whom the operative findings arouse suspicion. The next is among those clinically diagnosed, and here we commonly find non-operable cases. The worst prognosis is among those clinically diagnosed in which there is gross evidence of local spread or distant metastasis as demonstrated by x-ray findings.

Another important prognostic determining factor is the pathologic pattern. Tumors exhibiting a papillary structure, because of their tendency to remain encapsulated and because of their radio-sensitivity, offer the best outlook.

As in other types of malignancy, the presence or absence of distant metastases influences the prognosis, although metastasis does not contra-indicate adequate surgical and radiation therapy.

THERAPY

The treatment of carcinoma of the thyroid gland should first be preventive. In hardly any other lesion is it possible so easily to diagnose cancer in its earliest manifestation. I avoid the expression "pre-cancerous lesion" because it is quite possible that carcinoma develops as a distinct entity in itself, and not from a previously benign adenoma. All that is required is a moment of careful routine neck palpation to determine the presence of a nodule or nodules near the thyroid region. Removal of the prominent nodule is in itself insufficient. A thorough digital exploration of both thyroid lobes and isthmus at the time of operation, and the careful removal of all adenomata is the minimum prophylactic surgical procedure.

Just as in breast tumors, where the presence of a skilled pathologist is mandatory, so in all cases of adenomata of the thyroid, such help should be at hand. It is embarrassing and uncomfortable to bring the patient back to the operating room after 48 hours for a more radical surgical procedure, when this might have been carried out at the first sitting, had the surgeon known that the specimen was malignant.

OPERABILITY

In the absence of metastases, the most important feature in the consideration of the operability is the extent of fixation. Tumors which are completely fixed should not be treated surgically, except rarely for the palliative relief of the patient with an impending asphyxia.

Where there is a completely encapsulated carcinoma, the removal of the lesion with a fair amount of surrounding normal gland is considered sufficient. In cases without definite limitation, a lobectomy on the affected side should be performed. When there is capsular involvement, or evidence of infiltration of the isthmus, or of the contra-lateral side, a total thyroid ablation is indicated. With cervical lymph spread, however, a radical bilateral ablation and neck dissection should be carried out and should be extensive enough to remove all involved structures. The minimum of vital structures to be left intact is: one parathyroid, one recurrent nerve and both carotid arteries. Local recurrences or secondary involvement of cervical lymph glands should be extirpated.

RADIATION THERAPY

No therapeutic means should be overlooked to assure the best possible ultimate result. Therefore, except in adenocarcinoma arising in an adenoma (or where there is no evidence of spread beyond the adenoma or blood vessel involvement) all cases are treated by radiation post-operatively.

The factors employed are: 200 Kilovolts, 15 milliamperes, 0.5 millimeters copper and 1 millimeter aluminum, HVL 1.14 millimeters copper, 50 centimeters T.S.D. Right and left lateral neck portals are used averaging about 10 x 10 centimeters depending on individual requirements. Each portal is given 150 to 200 air roentgens daily for a total of about 2000 air roentgens per port, depending on the patient's tolerance.

Pronounced radiation dermatitis and mucositis must be anticipated. The larynx may be partly shielded with lead.

Metastases are treated with deep therapy as the need arises.

I have had no experience with the use of radio-active iodine. Much valuable work [2] has been done on this during the last several years, and this method may prove to be an important adjunct in the treatment of thyroid carcinoma.

SUMMARY

1. Carcinoma of the thyroid is a fairly common entity especially among females with nodular thyroids.

2. A series of ten cases of carcinoma is presented.

3. Classification is based on growth characteristics and microscopic appearance.

4. Prognosis depends on time of diagnosis, character of the lesion, and the presence or absence of metastases.

5. Treatment is surgical removal, the extent of surgery depending upon the character of the lesion.

6. Post-operative radiation and radio-active iodine are useful aids in treatment.

CONCLUSION

All patients with nodular thyroids should be operated upon as soon as these nodules are discovered. Cases proving to be malignant should be treated by adequate surgical extirpation of the neoplasm and by post-operative radiation if indicated.

2. Seidlin, S. M., Marinelli, L. D., Oshry, Eleanor: Journal of the American Medical Association, 132:838 (December 7, 1946).

89 Lincoln Park

ORAL ESTROGEN THERAPY IN THE MENOPAUSAL SYNDROME

Alfred J. Barbano, M.D., New Brunswick, N. J.

Estrogens are customarily evaluated by vaginal smears, hormone assays and other determinants of objective symptoms. The difficulty of carrying out such studies in the physician's office and the time and expense involved in making the tests, constitute a serious deterrent to a widespread use of this approach. The excellent report of Allen,[1] however, illustrates the value of clinical methods as they may be carried out in the hospital or clinic. It has been suggested by Shipley[2] that evaluation of an estrogen on the basis of subjective response of the patient is a rational method. It is felt by this writer that a procedure similar to that offered by Shipley has, among others, the following advantages: no complicated laboratory technics are required,—the accuracy of the interpretation of results is enhanced since all patients are interviewed by one examiner and. finally, this evaluation is based directly upon the degree of relief of the menopausal symptoms, which brought the patient to the doctor for treatment.

In this study, which extended over a period of one year, 125 unselected private patients (exhibiting a wide range of symptoms as shown in the appended chart) were treated by the writer for the menopausal syndrome.* Those patients shown in Table 1 who had not had a cessation of menses were either in the oligomenorrhoeic or pre-menopausal phase. The estrogen used in this study was diethyl-4-hydroxy-4' methyloxystilbene,—the monomethyl ether of diethylstilbestrol.†

At the initial visit each patient was given a complete physical examination and a detailed history was taken, including tabulation of all symptoms. Patients who had never been treated were given oral doses of 2.5 milligrams of estrogen (monomestrol†) daily. Others who had received parenteral estrogens were given injections of a placebo (physiologic saline) and in addition 2.5 milligrams of monomestrol by mouth daily. Each patient was seen at the end of one week for evaluation and adjustment of dosage. If nausea or vertigo ensued, the dosage was reduced to one milligram twice daily or, in some cases, once daily. Women whose symptoms were refractive to 2.5 milligrams were given this dose twice daily and then three times daily. Some of the latter developed severe nausea, but none reported vomiting. Of the entire group, twelve developed nausea on 2.5 milligrams or more daily. Each week, the dose of monomestrol was reduced to the point compatible with the desired subjective response. In the group treated with placebos and monomestrol, patients were gradually "weaned away" from the injections as symptoms improved. Taking into account the psychogenic phases of the menopause, this method of curtailing and then ultimately stopping injections proved to be very efficacious.

All patients were continued on estrogens for a period of six weeks. At this time, their symptomatology was reviewed and relief noted. These results are tabulated in Table 1.

TABLE 1

Symptoms	Cases	Proportion Relieved: Number Relieved	Proportion Relieved: Percent
1. Atrophic genital disorders	35	30	86
2. Hot flashes	112	104	93
3. Palpitation	80	77	96
4. Tachycardia	64	60	94
5. Senile vaginitis	30	28	93
6. Pruritus vulvae	11	11	100
7. Urinary dysfunction	1	1	100
8. Neuropsychiatric disturbances (headaches, vertigo, etc.)	92	90	98
9. Arthropathies	73	61	84
10. Fibrositis	87	78	89

TABLE 2

	Patients	Ratio
Marked relief	74	59.2%
Fair relief	37	29.6%
No improvement	12	9.6%
Made worse	2	1.6%
Total	125	100%

* No distinction was made as to the type of menopause, i. e. surgical, radiation or physiologic.

† Estrogenic preparations (Monomestrol—Brand of Mestilbol. N.N.R.) were generously supplied for this study by Wallace & Tiernan Prod. Inc., Belleville, N. J.

1. Allen, W. M.: Southern Medical Journal, 37:270 (1944).
2. Shipley, R. A.: American Practitioner, 1:666 (1947).

When menopausal symptoms were relieved they usually responded within this period or not at all. Symptomatic regression was evident if it became apparent within this period. Symptoms which proved refractive showed no change at all regardless of length of therapy. Hence, where amelioration was noted therapy was resumed after a two week rest period, preferably on a reduced dosage. In any case in which symptoms showed an exacerbation the original dosage was resumed. This was followed throughout the series, increasing by one week the rest period and where possible reducing the dosage. Patients were continued on this regime until the rest period became six weeks. At this time, they were given one more course of therapy, a final check-up and "discharged". Therapy was then resumed only if symptoms recurred, at which time medication was continued at the lowest dose compatible with the remission of symptoms. Hypertension and obesity remained uninfluenced by estrogen medication. In the hypertensive group was included any patient with a systolic pressure over 150 or diastolic in excess of 90. Any patient more than 10 per cent over the "ideal" weight, for height and age (according to one of the standard weight charts) was considered obese.

Generally speaking patients were seen weekly for the first four weeks of therapy. After the two week rest period they were seen at intervals increasing from every two weeks through three, four and five weeks to a final interval of once in six weeks.

Two important advantages of oral therapy are evident: (1) the number of visits is curtailed and (2) injections are completely obviated. Before each patient was discharged, she was asked to evaluate her persisting symptoms and determine if she had had relief, marked improvement, fair improvement or was made worse by therapy. Results of these questions are displayed in Table 2. Of the two patients who felt they were made worse, one required psychiatric care and the other was later diagnosed as a case of adiposis dolorosa. Of the twelve who felt they had not improved, ten developed severe nausea and could not tolerate dosages sufficient to improve symptoms. One developed kraurosis vulvae and another hypertensive encephalopathy. Of the entire group, 111 manifested relief in some degree. Of these, all began to show improvement after the first six weeks of treatment. No attempt was made to limit therapy. The low cost of monomestrol precluded the necessity for economizing on medication.

In the entire series only three patients developed vaginal bleeding. This was promptly controlled by reducing the dose.

SUMMARY

1. A group of 125 patients with menopausal symptoms was treated with monomestrol tablets orally. Relief was obtained by 111, or 89 per cent—no relief by 12—or 9.6 per cent; and 2 or 1.6 per cent felt they were made worse by treatment.

2. The economy to the patient both in cost of medication and frequency of visits to the office is obvious.

3. The paucity of side reactions is comparable with some of the other estrogens and better than most.

4. Relief of symptoms with this oral estrogen is comparable with results in parenteral therapy. Admittedly, results are somewhat slower as it takes longer to stabilize the patient, (about six weeks)—but some gladly tolerate delay to avoid injections. Having available such a satisfactory oral estrogen, the choice as to route of administration must be determined for the individual case.

4. After an initial course of 2.5 milligrams of monomestrol daily for six weeks, patients are reduced to 1, 0.5 or even 0.25 milligrams daily with complete control of symptoms.

51 Bayard Street

INTERRELATION OF PEDIATRICS AND ORTHODONTIA*

Walter M. Dunlap, D.D.S., East Orange, N. J.

A discussion of the causes of malocclusion is most appropriate before a gathering of pediatricians because if prevention is to be accomplished it must be done early in life, during that period when the child is under the pediatrician's care.

At birth the pattern of teeth is already laid down and nothing will change this pattern. However, during the growth and development of these teeth many things might happen to alter the amount of bone intended to support them.

The size and shape of each tooth is designed to fit into its particular place in forming the complete denture. Where there is a normal growth of bone, each tooth will make every effort to occupy its proper position in the dental arch. The muscle forces surrounding the dental arch are responsible for influencing the teeth to assume their proper position and if these muscle forces are in balance and harmony the teeth should be in normal occlusion.

It is therefore our responsibility to the child at birth to make every effort to maintain these forces in a normal order so that there will be a minimum of interference with the natural forces of growth and development.

The teeth should be cared for from the day they begin to erupt. Every mother should be impressed with the importance of thorough and intelligent tooth-brushing which she (the mother) should do for the child until he is old enough to realize his own responsibility. Most parents pay little attention to this and throw the responsibility on shoulders much too young to assume it. It is shocking to realize the amount of tooth destruction from just plain neglect.

Good child dentistry is an essential part of the normal development of the denture. At about the age of three, the child has a full set of twenty deciduous teeth and, if they have been properly cared for, these teeth should be in good condition and occlusion. This is the time for the child to become acquainted with the dentist. The impressions and experiences of the first few visits to the dental office are lasting ones and, if conducted well, can add much to the future happiness of the child.

The role the deciduous teeth play in the growth and development of the denture is not fully appreciated. Many parents believe that, because these teeth will be lost anyway, their preservation is not important. Actually, all the deciduous teeth should be preserved and their form and pattern should be maintained so that no tooth space will be lost. The deciduous tooth should remain in the mouth until its permanent successor is ready to erupt. If a deciduous tooth is lost prematurely it may be necessary to retain the space by some mechanical means until the permanent tooth begins to grow through the gums.

Nature does a wonderful job of maintaining growth and development according to the pattern laid down for the individual child, especially if the child enjoys good health and lives in a favorable environment. Certain factors, however, tend to interrupt this normal growth pattern and produce malocclusion, varying from a very slight deviation to a marked deformity. These factors are (1) habits developed and acquired by the child, and (2) causes which cannot be avoided such as illness and structural defects.

In many instances, deviation from the normal begins in a very simple way and inasmuch as it is impossible to determine to what extent the damage from these childhood habits will develop, the policy is to discourage as many of them as possible in their very beginning. In many cases the habit is ignored because it serves the purpose of keeping the child quiet; when the ill effects become apparent the habit has become so well established that correction is very difficult to accomplish.

The most common habits in childhood (from

* Read by invitation, to The Medical Society of New Jersey, April 27, 1948.

an orthodontist's point of view) are thumb and finger sucking, finger nail biting, bad sleeping postures, mouth breathing, lip sucking and tongue habits. Some of these may lead to serious perversion of muscle forces and abnormal function which sets up a vicious cycle of interruption of the forces intended to direct the teeth into their proper position.

Malocclusion resulting from bad tongue habits or swallowing perversions are some of our most discouraging problems. It is often difficult to determine whether this is really a habit or a compensation for some injury or the defect of the group of muscles which play an important part in the act of swallowing. The habit is a strong forward thrust of the tongue against the teeth with an apparent effort to swallow with the muscles of the tongue and the lower lip in order to avoid the use of the muscles of the throat. The habit might be formed as a result of tonsillitis, laryngitis, or some infection of the throat. The patient might form the habit of swallowing in a way to protect the sore tissues of the throat and after the infection has subsided the patient may not return to the normal process of swallowing. The throat muscles may have been impaired or weakened by illness to the extent that deglutition has been disturbed and the tongue thrust might be a compensation for the weakness. It is also conceivable that a careless tonsillectomy might impair the muscles of the throat sufficiently to cause an interruption of the normal function. Whatever the cause, habit or compensation, the correction of these deformities is futile, unless the normal function of the muscles can be established.

One of the common habits in childhood is thumb and finger sucking. There is considerable controversy as to its effect in causing malocclusion. Certainly we see some children who indulge in the habit and suffer little or no harm. However, I assure you from my experience that it is very decidedly a factor in disturbing and upsetting the normal denture.

Orthodontic treatment with this type of malocclusion is usually successful because, as a rule, by the time the orthodontist begins his work the child has been broken of the habit. However, these sucking habits may lead to more complicated conditions involving tongue habits and the perversion of muscle forces which are difficult to correct since it calls for a program of long and persistent muscle training on the part of the young patient. Thumb sucking should not be looked upon lightly.

Nail biting causes a deformity of the occlusion of the teeth and of the delicate soft tissues of the fingers as well. When the habit is practiced with great persistence the nail is always kept so short that in order to get the nail between the teeth considerable force is necessary; and since this force is more or less constant the teeth are pushed out of their normal positions. I have seen cases where I felt that more harm had been done to the fingers than to the teeth.

Sleeping postures are responsible for many deformities. In early infancy it is essential that the child be placed on its side and I am aware that during the early weeks of life much attention to changing positions is shown. But when the child becomes strong enough to change his position the attention is gradually relaxed and positions and habits of posture are formed. From an orthodontic standpoint we would like to discourage children from forming a habit of sleeping on the face. Children are restless sleepers and do not remain in one position long enough to do any harm. It is the quiet sleeper who stays in one position most of the time who suffers the damage. These individuals sleep on their stomachs and turn their heads from side to side; or form a habit of staying on one side most of the time, changing occasionally for the purpose of rest. To facilitate comfortable breathing the face is supported on the hand or in some way raised and the weight of the head is directed against the cheek and the denture. Some orthodontists believe that practically all malocclusion is caused by sleeping posture. All orthodontists do not share this belief, however.

Mouth breathing may be only a phase of normal growth. The habit might be formed as a temporary measure while the child is suffering from a cold and the habit continued after recovery. Many children have one cold after another making it impossible for them to have much chance to breath normally. Tonsils and adenoids are looked upon as causes of

mouth breathing and many people believe that the correction of mouth breathing is simply the removal of the tonsils and adenoids; but if the habit has been established, definite steps for correction will be necessary.

It is not our purpose, therefore, to concern ourselves as orthodontists with the numerous diseases and conditions which cause mouth breathing for we are more concerned with the treatment of the deformity caused by the disease. Yet we are deeply conscious of the fact that unless considerable success is attained in correcting the cause we can hope for no spectacular result by treating the effect.

The patient suffering from the necessity of mouth breathing presents a characteristic pattern. With the mouth open the muscles of the face are distorted and exert a force causing a narrow upper arch and lack of development of the bones of the face and mandible. The face is usually pale and wan, giving the child a very forlorn appearance. It is here that the rhinologist and the orthodontist meet with sympathetic understanding, for they are truly dependent upon each other. The permanent correction and elimination of the cause by the physician is often impossible without some adjustment of the effect by the orthodontist. Great credit is due the medical profession for the enormous benefit and relief they have given to this group of human sufferers and they have made it possible for the orthodontist to attain results which otherwise he never could have approached. Fortunately, many patients "grow out" of these conditions as they approach maturity.

At times tardy absorption of the roots of the deciduous teeth may interrupt the orderly development of the permanent teeth but it is seldom a help to extract a deciduous tooth to make room for a tooth that is not its normal successor. The dentist in general practice should consult the orthodontist before making any such extraction. Many extractions are made for purely dental causes and are not given the proper study and consideration, often leading to the loss of precious space that cannot be regained easily.

Most cases should be in the hands of the orthodontist long before appliances are indicated and it would therefore seem advisable to refer the work to the orthodontist as soon as any deviation from the normal is recognized. Too often patients apply for treatment too late, after the opportunity for doing the best work has passed. There is an erroneous idea in the minds, not only of the laymen, but of some professional people as well, that the orthodontist does not want to see the patient until after all the permanent teeth have developed.

How early should orthodontic treatment be initiated? This depends on many conditions, so that no definite rule will answer for all cases. Occasionally a few hours of work at the proper time may prevent the development of a condition that would be impossible to correct later. It is possible to work for some children much earlier than others so that the temperament of the child is often a factor in deciding when the work is to be started.

At about eight years of age a child has a "mixed denture" twelve permanent teeth and twelve deciduous teeth. The deciduous teeth remaining at this age occupy more space in the dental arch than the permanent teeth which replace them. In some conditions it may be possible to utilize this growth change to great advantage if the child were seen early enough.

It is possible to begin orthodontic treatment *too early* in some cases and it is advisable to consider treatment period from the standpoint of accomplishing the most good in the shortest period of time; in other words, to institute appliance therapy in anticipation of completing the orthodontic treatment at the time the growth of the denture is completed. It is much better, therefore, to see these patients too early than it is to see them after the condition of malocclusion has developed to its worst stage. Too many people think that orthodontics is merely the mechanical setting of individual teeth into their proper alignment and that any failure in treatment rests with the orthodontist.

I am opposed to doing anything as a corrective measure without realizing that even with the youngest child you are dealing with an intelligence that can be trained to understand the difference between right and wrong. Do not resort to mechanical means of breaking

a habit without making the child understand why it is being done. I do not approve of theories that permit the child to do as he wills for fear of frustrations. Certainly correction and guidance can be accomplished without resulting in harmful effects upon the child. Much depends on the parents but not all failures can be laid to indifference.

144 Harrison Street

DISCUSSION

DR. HARLAN S. DE VOE: I agree with Dr. Dunlap that over-emphasis on ignoring mouth habits at an early age may cause untold damage to the dental mechanism. Allowing a child to suck his thumb, fingers, lip, or anything else for too long a time will lead to permanent damage in most cases. We must choose between the possible frustrations of breaking a habit at an early age and the dental anomalies which later may cause more serious psychiatric complication.

Many of these habits start innocently. Due to a mild disagreement between dental and medical consultants they may be allowed to continue until they are deeply ingrained. By that time so much damage to the arches has been done that it takes heroic efforts to break the habit and correct the malocclusion. Often at the onset of the habit a discerning professional man can discover the home dis-harmony which may be causing the nervousness in the child. Once the cause is removed, the habit will often stop of its own accord. When these habits are stopped, the mouth will immediately start to improve.

I want to underscore Dr. Dunlap's emphasis on seeing a child early enough. We can ask that physicians and dentists routinely refer patients at an early age to an orthodontist. We know from experience that this will not work. To get action from many parents we must identify the conditions of malocclusion and show the parents what may happen if it is not treated. Most pediatricians and most general dentists are not sufficiently trained in orthodontics to do this. Most of the referred cases are ones that are so esthetically malformed that anyone and everyone agrees that treatment is necessary. The less obvious malocclusions of the back teeth or chewing teeth are often not noticed until all the permanent teeth are in place. Many of these could have been helped by earlier intervention.

Early discovery of metabolic disturbances will prevent many complications of growth and development. Routine wrist x-rays compared to Todd's *Standards* will often pick up these growth irregularities. A spread of two or three years' accelerated or retarded growth is many times an indication that the child needs glandular therapy. Some cases of malocclusion will actually correct themselves with medication alone.

The most important thing is for more complete orthodontic education for those men who see children at early ages so that they may recognize the patient who needs treatment. Some knowledge of the appearance of typical malformed cases and their final outcome would help.

For those who cannot acquire this knowledge and training another course is open. Ask your dentist for several sets of plaster models showing normal occlusions at various age intervals. Routinely compare your patient's occlusion with these models and refer all cases to the orthodontist which do not look like the normal models.

It is not easy to get a young child to close his mouth normally or in the centric or rest position. Unless you can do this you cannot compare his mouth with the normal.

Of course if the child is referred to the general dentist or pediodontist at the proper time, approximately three years of age, many of these responsibilities should be assumed by him. Periodic examination by instrument, cavity x-rays, transillumination and study models will prevent most oral complications. Early intervention in caries control and preventive measures orthodontically will do much to help prevent and correct malocclusion.

If we could get the same complete cooperation from the parents as we get between the pediatrician and the dentist, most of these problems could be easily solved.

AMERICAN BOARD OF PREVENTIVE MEDICINE AND PUBLIC HEALTH ESTABLISHED

Newest of the specialty examing boards is the American Board of Preventive Medicine and Public Health which was approved by the American Medical Association February 6, 1949. Candidates for examination must have had six years of special training, teaching or practice in preventive medicine and public health including at least one year of graduate study and at least two years of residency or field experience. Further details may be obtained by writing to the Secretary of the Board, Ernest L. Stebbins, M.D., 615 North Wolfe Street, Baltimore 5, Maryland.

ESTROGENIC TREATMENT OF ACNE VULGARIS*

A PRELIMINARY REPORT

IRVING SHAPIRO, M.D., Newark, N. J.

Adolescent acne is the only type considered in this study. This excludes keloid, tar, oil, halogen acne and acne necrotica.

About the time of puberty, comedones, the primary lesion of acne, make their appearance. Bloch[1] has shown this phenomenon to be related to gonadal activity. Unna had previously stated that hyper-keratosis of the follicular mouth gave rise to the comedo. When Hamilton[2] produced comedones in castrates and cryptorchids under treatment with testosterone the logical conclusion appeared to be that androgens were the causative factor.

Bloch[1] makes clear the individual and hereditary susceptibility of the follicular apparatus to hormonal influence.

Lawrence and Werthessen[3] found a decrease in the urinary estrogen excretion in normal females with acne so that the androgen-estrogen ratio was expressed as 2.46 in normals and 6.67 in acne patients.

They concluded that comedones and acne result from an increase in the ratio of androgen to estrogen rather than only decrease in the latter. This is in accord with clinical experience for most girls and women suffering with acne present no signs of ovarian insufficiency. More boys than girls have acne. Once the comedones become established, a vicious cycle of foreign body reaction sets in manifested by papules, pustules and cysts that heal with scarring.

Estrogens neutralize or combat androgens. Since a target organ, (the skin in this case) is accessible to direct application of estrogens, a hormonal approach to the acne problem was undertaken. Previous workers had used an oily vehicle with poor results.

Absorption of estrogens from the skin is wasteful, inefficient, and poor in its distant effects[4] therefore a vanishing cream* containing a high concentration of estrogens was utilized.

MATERIALS AND METHODS

One to two grams of a water soluble cream containing 2½ mgm. per gm. of sodium estrone sulfate* was applied to the soap washed skin two to four times daily. With improvement, applications were gradually reduced to one daily or every other day. Accessory treatment consisted of simple expression of comedones, drainage of cysts and pustules.

Subjects chosen had chronic severe acne all of whom had not responded well to x-ray therapy, dietary control, local salves and lotions.

Iodized table salt was excluded specifically. Otherwise no dietary regimen was enforced. Patients were observed over a period of four months.

Number: 13 males
17 females
Average age: 22 years
Average duration of acne: 8 years
Location of acne: Face, chest, back
Previous therapy: Alpine rays
X-rays
Diets
Local astringents
Acne present: Comedones
Papules
Pustules
Previous health: Good
Associated diseases: None

Endocrinc disturbance: None—before, during or after therapy, no change in male breasts, libido or potency, or hirsuties. No change in menses, amount of bleeding or duration.

Laboratory findings: Urines: sugar and albumen negative.
Blood pressure: within normal limits.
Hemoglobin: 75 to 85%.
B.M.R.: Plus or minus 15%.

Patch tests to ointment: Negative 24, 48, 72 hours and 10 days.

*Acknowledgement is given to Dr. George McKeown of Ayerst, MacKenna and Harrison who supplied the special potencies of "Premarin" cream. This work was supported by a grant from Ayerst, McKenna, Harrison, Ltd.

1. Bloch, Bruno: British Journal of Dermatology & Syphilology, 43:61 (Jan. 1931).
2. Hamilton, John B.: Journal of Clinical Endocrinology, 1:570 (June 1941).
3. Lawrence, C. H., and Werthessen, N. T.: Endocrinology, 27:755 (December 1940).
4. Selye, Hans: *Textbook of Endocrinology.* Saunders, Philadelphia, (1947).



Figure 1. S. W., 17 years old. Acne duration 4½ years, showing florid papulopustular condition when first seen.



Figure 2. S. W. after 10 weeks *Premarin Cream* only, showing stains and scars but no activity.

CLINICAL RESULTS

During the first two weeks of local therapy no marked change, even flareups were noted. The acneform foreign body reaction, namely papules, pustules, and cysts evolved and involuted in a period of four to six weeks.

Earliest noted effects were:

1. Marked decrease in sebaceous gland activity.
2. Diminished number of new comedones.
3. Diminished number of pustules.
4. Acne areas became paler.
5. Affected areas felt supple and softer.

Within six weeks, improvement became firmly established. Number of local applications was reduced accordingly to one daily or one every other day.

After sixteen weeks, 20 of the 30 patients reported a satisfactory clinical remission.

The other ten were divided as follows:

3—intense pruritus when ointment was applied.

5—lapsed treatment.

2—recurrences of acne suggested dietary or other etiology.

CONCLUSIONS

Remissions were induced in two-thirds of the patients who were failures under classical management. Therefore a promising avenue is opened in the control of recalcitrant acne vulgaris.

SUMMARY

1. Thirty treatment resistant cases of acne were treated with a potent estrogen containing vanishing cream applied locally.

2. Within six weeks oiliness, papules and pustules had subsided markedly in twenty of the cases.

3. A promising approach to therapy resistant acne vulgaris is described.

78 Clinton Avenue

THE THERAPEUTIC TEST: A NEGLECTED DIAGNOSTIC TOOL

Sidney Friedenberg, M.D., Camden, N. J.

When tests are inconclusive or cannot be performed, when consultation is refused, when the diagnosis cannot be made with the data at hand it may be possible to exploit the therapeutic test.

A therapeutic test is the use of a drug which in *one* disease only produces a recognizable improvement or cure of the patient. Thus, where malaria is endemic the feverish patient often receives quinine and from the rapid recovery the diagnosis of malaria is reasonably inferred.

This method of diagnosis should be a last and not a first resort.

The principles of the therapeutic test are:

1. The result must be unequivocal. The patient is cured or very much improved.
2. The drug used will cure or greatly improve only one disease. Thus antibiotic or sulfonamide therapy can rarely be used. Each strikes at many organisms. These forms of therapy are often tried in cryptogenic fevers and less than often are useful. If a fever of unknown origin is made worse by antibiotic therapy, rheumatic fever must be considered. This is a therapeutic test in reverse. Other examples are the use of iodides for dermatitis herpetiformis and the salt deprivation test (Wilder) for Addison's disease.
3. The drug should be relatively harmless.
4. Where operable carcinoma is a possibility it should be considered first.

The advantages of the therapeutic test are:

1. It is a bedside procedure.
2. It is economical.

The disadvantages are:

1. It encourages snap diagnosis.
2. It may confuse both the diagnosis and the doctor.
3. The correct diagnosis may be delayed.

VITAMIN DEFICIENCIES

Rare is the physician who assays blood and urine before prescribing vitamins even though there are no obvious signs of deficiency. He is performing a therapeutic test.

Where a vitamin B complex deficiency is suspected, I prefer a combination of B complex which contains only the therapeutically recognized components: thiamin chloride, riboflavin, and niacinamide. Ascorbic acid is included only because the tablet manufacturers think it wise. It is not wise to use folic acid, the new queen of the B complex retinue. The amount of folic acid in the proprietary vitamin preparations might result in improvement of a patient with unsuspected primary pernicious anemia, enough to confuse the diagnosis. Folic acid is specific for sprue and with rare exceptions should be reserved for that condition alone.

HYPERVITAMINOSIS

The vitamin enthusiast may be removed from his beloved capsules for a few weeks to see if his ill-defined complaints clear up.

GOUT

There are no laboratory or x-ray studies of much use in early gout. Therefore, in atypical arthritis or arthralgia, colchicine or neocincophen may be used. Rarely, a spectacular success will result.

SPONDYLITIS

Despite sclerotic changes in the spine or low-back found by x-ray, much of what is termed "arthritis" is emotionally produced. Two incapacitated patients were cured recently by psychiatric interview. I presume the psychiatrist will accept the role of a "therapeutic test".

MASKED HYPERTHYROIDISM

This is relatively common. The occasional benefits that elderly coronary patients derive from aminophyllin, phenobarbital, and potassium iodide tablets are probably due to the iodine content and the presence of a masked hyperthyroidism. An unknowing therapeutic test!

The elderly patient whose auricular fibrillation responds poorly to the digitalis preparations is suspect. Because the basal metabolic

rate in heart failure may be misleading, a therapeutic test with propyl thiouracil is indicated. An obese female of 67 with auricular fibrillation did not respond to digoxin or quinidine, but after two weeks of propyl thiouracil the pulse was normal in rate and rhythm. Obesity and apparent absence of weight loss do not rule out hyperthyroidism.

Propyl thiouracil is preferred to the iodides because it is more specific, but the iodides are more rapid in action and might be indicated in a toxic patient.

HYPOTHYROIDISM

Hypothyroidism is common, frequently found in association with other diseases and so overlooked. If one or two grains of dessicated thyroid substance do not clear up the fatigue, irritability, and complaint of abdominal distention in a short time, there is no hypothyroidism.

SCALE FOR HYPOCHONDRIACS

Sometimes, a patient's recountal of symptoms has formed in my mind a table of differential diagnosis which includes brain tumor, hypoglycemia, carcinoma, and psychoneurosis. All are discarded except the latter when the patient acts in this manner: the serious mien evanesces as she abruptly arises and darts over to the weighing scale, her expression beatific, like a pagan worshipper approaching a minor shrine.

An office scale must be included therefore among the therapeutic tests!

THE CLIMACTERIC

All "hot flashes" are not the menopause. The woman with "nervous symptoms" during the climacteric deserves huge doses of estrogenic substance and the synthetic estrogen. If at least 100,000 International Units have been given weekly for three weeks without improvement, the conclusion must be that the climacteric has but little to do with the emotional symptoms.

The male with coronary artery disease who benefits from testosterone propionate does so because the Leydig cells of his testicles have ceased to function.

PREMENSTRUAL TENSION

The mechanism of premenstrual tension is water retention, but the etiology is unknown. Because it is often confused with neurosis, the therapeutic test is satisfactory. In the 10 days preceding the onset of the menses ammonium chloride or methyl testosterone may be given. Intramuscular mercuhydrin is more dramatic in its relief. Stilbesterol, one or two milligrams daily, may be given for the *first* 20 days of the period to inhibit ovulation. This is also useful in dysmenorrhoea.

ADDISON'S DISEASE

Five milligrams of desoxycorticosterone acetate intramuscularly and salt solution intravenously for three or four days to a cachectic, vomiting patient whose sorrowing family are gathered at the supposed death-bed may secure the local doctor's fame (for a month or two).

CHRONIC LEAD POISONING

Intramuscular injections of British Anti-Lewisite* or intravenous calcium gluconate may give quick relief to long-standing complaints in patients exposed to lead.

CHRONIC URTICARIA AND PRURITUS

Once in a while, instead of treating the patient with this troublesome disorder, suggest spraying the mattress and base-boards with a DDT solution. A "cure" may result.

A troublesome case of nocturnal pruritus in an elderly lady cleared up with one application of the emulsion of benzyl benzoate although lesions typical of scabies were not found.

EXFOLIATIVE DERMATITIS

An obdurate case should have a trial course of dimercaptopropanol (BAL) therapy.

MYASTHENIA GRAVIS

The "neurasthenic" patient who complains of spells of weakness or more localized complaints will, within the hour, be greatly relieved by the diagnostic ampule of neostigmine and atropine sulfate, if myasthenia gravis is the cause.

CONVULSIVE DISORDERS

In children, the possibility of petit mal is often forgotten. A girl of seven complained

* Bal is 2, 3, dimercaptopropanol.

of weakness and dizziness, usually on her way to school. Was this a behaviour problem? Tridione cleared up the symptoms completely; and the syndrome recurred when a placebo was given. Diagnosis: Petit mal.

The response to narco-lepsy is even more consistent. Amphetamine sulfate produces an immediate, gratifying effect; it may affect the appetite, however, and if it does desoxyephedrine hydrochloride may be found to be equally effective.

POSTERO-LATERAL SCLEROSIS

The stumbling and incoordination of an aged person cannot always be attributed to an arteriosclerotic process. A course with a good crude liver extract should be given for several months. Pernicious aenemia may announce itself by neurologic symptoms before the blood picture is diagnostic. There is no more valuable test than the therapeutic one under these circumstances.

SYPHILIS

It is dubious whether late latent syphilis as shown by a positive serologic reaction, no physical findings, and a normal fluoroscopy of the heart and great vessels need be treated. If vague symptoms are present a course of bismuth oral or intramuscular should be first given, since it is specific.

Differentiation between *inoperable* carcinoma and late syphilis calls for the strongest measures such as penicillin and mapharsen.

HEADACHE

In the treatment of the headache of "chronic sinusitis" trial of one of the "anti-histaminic" substances should be made. Although the average person will tolerate therapy through any orifice, nasal medication should be deferred at first. Relief of headache with an "anti-histaminic" tablet suggests an allergy.

Migraine is aided within the hour by dihydroergotamine subcutaneously. An elimination diet for food allergy sometimes is curative.

Nicotinic acid intramuscularly or intravenously is temporarily effective in the "hypertensive" headache.

Occipital neuralgia is improved by procaine hydrochloride infiltration into the scalp or occipital nerve. The same results may sometimes be observed with ethyl chloride spray.

Chronic headache in the elderly often responds well to oral nicotinic acid, 25 to 100 milligrams every four hours. The "small apoplexies" (Alvarez) also benefit from its use.

Ophthalmoscopic examination of the eyegrounds should be done before treatment of headache is initiated.

2990 Alabama Road

WANTED FOR INFANTICIDE

Joseph P. Donnelly, M.D., Chairman of Section on Obstetrics and Gynecology

Asphyxia neonatorium, birth injuries, prematurity, and the other causes of death in newborn infants are to be thoroughly investigated at the Section on Obstetrics and Gynecology at Atlantic City, on Tuesday, April 26, at 2 p. m. To do a good job of reducing the infant mortality in the next few years, there must be much closer cooperation between the obstetricians, anesthetists and the pediatricians. How this may be achieved will be presented in the brief talks by the three speakers at the symposium on infantile mortality.

No principal discussors have been named. Success of the meeting will depend on the general discussion from the floor, and it is hoped that everyone will bring his problem and his question. The speakers, with the help of the audience, will be able to answer most of the questions.

Let us prove to our critics that in the next few years we can do as good a job in reducing infant mortality as we have done in decreasing the maternal mortality rate in the past twenty years.

The death of a new-born infant is always a tragedy. Let us see that not a single preventable death is attributable to the quality of our care.

BRONCHOLITHIASIS: REPORT OF A CASE SIMULATING BRONCHOGENIC MALIGNANCY

Allen Welkind, M.D., and
Henry A. Brodkin, M.D., Newark, N. J.

Broncholithiasis, although now recognized, with increasing frequency, is still rare enough to warrant report of another case. From 1900 to 1946 Zahn [1] was able to find only 71 cases in the American and English literature, and added one of his own. Since then only three more have been recorded, one by Barrett,[2] one from the case records of the Massachusetts General Hospital,[3] and one by Rubin.[4]

According to Tinney and Moersch,[5] there is only one finding which is diagnostic in itself, and this is expectoration of a stone or stones. However in their series from the Mayo Clinic only 32 per cent presented this symptom in the history or course after coming under observation. Of the other symptoms, none was pathognomonic. Severe paroxysmal irritating cough was prominent in 50 per cent. This cough at times associated with an asthmatoid wheeze. Thoracic pain, usually substernal, was noted in 46 per cent. Sometimes this was described as tearing in nature. Hemoptysis was frequent, especially at the time of expectoration of the calculi, but never severe enough to be dangerous to life. Sputum in small quantities sometimes foul, is common. Not infrequently bouts of chills and fever, recurrent pneumonia, malaise, and weight loss were the clinical features. Except for the expectoration of calculi, the other symptoms are also seen in tuberculosis, malignancy of the bronchus, bronchiectasis, chronic lung abscess, and aspiration of foreign body. X-ray findings of atelectasis seen in broncholithiasis have no special characteristics differentiating them from other conditions except possibly the presence of extraordinary numbers of hilar calcifications.

Broncholiths are generally due to calcified tuberculous glands or pulmonary tissue. These may migrate and erode into the lumen of a neighboring bronchus. It is interesting that only in Zahn's case [1] was sputum positive for acid-fast bacilli Other causes of pathologic calcifications in the lung are given by Fox and Clerf [6] who reported ten cases. These include parathyroid adenoma, octeomalacia, multiple myeloma, and decalcification of bone due to extensive malignant invasion. It is their opinion that inspissated pus may become calcified in lung abscess. They did extensive bronchoscopic investigation in their cases and localized the sites as follows: Five involved the right middle lobe bronchus, three were in the right lower lobe bronchus, and one each in the left upper and left lower lobe bronchi.

One point is stressed by all authors. In the differential diagnosis of bronchial obstruction, broncholithiasis must always be considered. The following case was one in which the diagnosis was not made until necropsy.

A 44 year old white female was referred to the senior author by her family physician in February, 1938. She presented a story of two months of cough with expectoration of thick, mucopurulent sputum, small in quantity, never foul or bloody. During this period, her weight had dropped six pounds. She was easily fatigued, but had no fever or night sweats. Dyspnea was not prominent. The cough was irritating, frequent, but had not been antedated by upper respiratory infection or aspiration of foreign body. There was no known exposure to tuberculosis, and nothing in the past history to suggest such illness. The remainder of the past and family history was not significant.

She was a tall well-nourished middle-aged female who did not appear acutely ill. There was no cyanosis, dyspnea, anemia, or clubbing of the fingers. Temperature and pulse were normal. Blood pressure was 132/85. She coughed frequently with a small, irritating hack which was productive of frankly purulent, thick, odorless sputum. Except for the thorax no physical abnormalities were pres-

1. Zahn, D. W.: American Review of Tuberculosis, 54:418 (Nov. 1946).
2. Barrett, J. H.: Archives of Otolaryngology, 44:574 (Nov. 1946).
3. Massachusetts General Hospital Case 32302, New England Journal of Medicine, 235:139 (July 25, 1946).
4. Rubin, E. H.: *Diseases of the Chest*, W. B. Saunders, Philadelphia, 1947.
5. Tinney, W. S. and Moersch, H. J.: Surgical Clinics North America, 28:830 (Aug. 1946).
6. Fox, J. R. and Clerf, L. H.:Annals of Internal Medicine, 23:955 (December 1945).

ent. The trachea was in the midline. There were no palpable glands in the neck or axilla. Horner's syndrome was not evident. The left apex and infraclavicular region were flat to percussion, and breath sounds were absent from this area.

Fluoroscopy and x-ray (Figure 1) revealed a smooth, dense, wedge-shaped shadow filling the cupola of the left thorax, and extending toward the hilum. There were a few scattered, small calcifications in the hila. The rest of the lung fields were normal, as were the heart and bony cage.

On March 15, bronchoscopy by Dr.Nathan Zvaifler revealed that the orifice of the left upper lobe bronchus was mildly narrowed. There was a small amount of purulent secretion coming from this bronchus. There were no infiltrations, granulations, or evidence of extrinsic pressure.

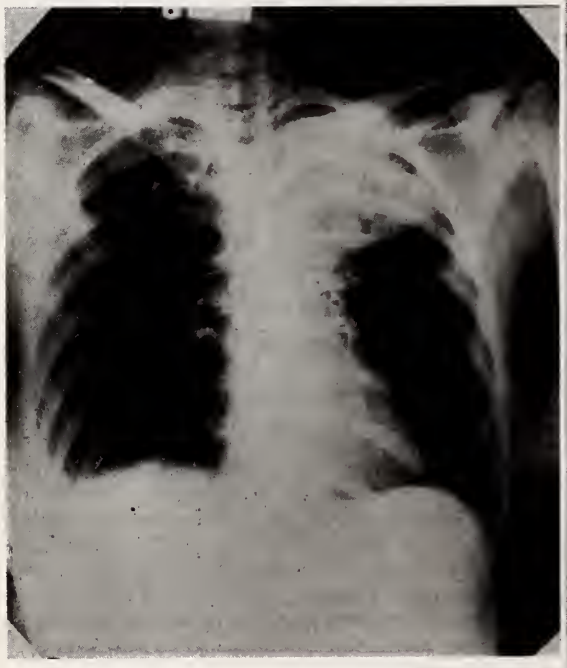


Figure 1.

Examination of the sputum and bronchial secretions showed no tubercle bacilli, on concentration and guinea pig inoculation.

Diagnoses entertained at this time were bronchogenic neoplasm, superior sulcus tumor, and aspirated foreign body. At the patient's request she was seen in consultation by Dr. G. G. Ornstein who concurred in the general opinion that there was an obstructing lesion of the left upper lobe, probably neoplastic. He advised exploratory thoracotomy, and resection if the findings were conclusive.

The patient entered the Newark Beth Israel Hospital on May 12. Interval history showed an increase in cough and expectoration. Streaks of blood had been noted on a few occasions, but no gross hemoptysis. Intermittent low grade fever had been present for about six weeks. Physical findings were essentially the same.

On the day of admission bronchoscopy was repeated, but the only new finding was a foul odor to the secretions from the left upper lobe bronchus. Lipiodol was introduced through the bronchoscope but x-rays showed that no lipiodol had entered the left upper lobe bronchus. Preliminary pneumothorax was instituted on May 13, as a preparatory measure. No difficulty was encountered, and refills were given on the next two days. Following the second refill the temperature rose to 102.4. X-ray showed an even collapse of all lobes of the left lung of about 25 per cent. The apex had dropped with no evidence of adhesions. The temperature continued elevated and it became obvious after a few days that the pneumothorax had further obstructed the drainage from the left upper lobe bronchus. Sulfanilamide therapy was instituted without any effect. Culture of the sputum revealed anaerobic hemolytic streptococci.



Figure 2.

We felt that the patient had developed a lung abscess, and that surgical drainage was indicated. On June 1, first stage pneumonostomy was performed by the junior author. The pleura over the left upper lobe was packed with lodoform gauze to produce obliteration of the pleural space. Three days later aspiration of the lung with an exploratory needle was productive of pus and a small abscess cavity was opened into by following the course of the needle. Smear of the pus showed no evidence of bacteria. Biopsy of the lung showed only chronic pneumonitis.

On June 6, fluid appeared in the left pleural space, which when tapped was slightly cloudy, yellow and sterile on culture. Temperature became septic ranging from 101 to 105. Transfusion was given. Blood culture was negative. The lung was again aspirated and a large abscess cavity was opened on June 8. The fluid in the chest was frankly purulent on June 13, and closed thoracotomy was performed on that day. More small abscesses were found and aspirated. The patient's condition progressively failed and she died on June 18.

Permission was obtained to remove the left lung through the operative wound. Examination by Dr. William Antopol showed a broncholith completely obstructing the orifice of the apical posterior branch of the left upper lobe bronchus. There was no evidence of tuberculosis or malignancy. The lung showed acute and chronic pneumonitis superimposed on atelectasis of the segment supplied by the obstructed bronchus.

The correct diagnosis was missed in this case simply because broncholithiasis was not considered as a cause of bronchial obstruction. In light of present-day knowledge surgical removal of the lobe would have been performed, and recovery would have followed. The clinical course could fit obstruction of any etiology. Only one x-ray, a Bucky (Figure 2) gave evidence that might have been interpreted as a stone. It was unfortunate that the calculus lay in a bronchus which could not be visualized by endoscopy. Had we proceeded with lobectomy in face of the elevated temperature, it is conceivable that the patient might have survived.

CONCLUSIONS

1. A case of broncholithiasis is reported in which the apical posterior branch of the left upper lobe bronchus was occluded. The diagnosis was not entertained during the course of the illness and was recognized only at necropsy. Following pneumothorax induced artificially preparatory to open exploration of the left thorax, the patient developed multiple lung abscesses and empyema which terminated in her death.

2. Despite its relative rarity, broncholithiasis must be considered in the differential diagnosis of all bronchial obstructions.

365 Osborne Terrace

PHILADELPHIA POSTGRADUATE INSTITUTE

The Philadelphia County Medical Society will hold its postgraduate institute at the Bellevue-Stratford Hotel on April 5-8. Admission fee for the entire Institute is $5. A variety of practical modern medical problems will be covered. For further details write to the Director, Philadelphia County Medical Society, 301 S. 21 Street, Philadelphia 3.

DECENNIAL MEETING OF THE PHARMACOPOEIAL CONVENTION

In compliance with the provisions of the Constitution and By-Laws of The United States Pharmacopoeial Convention, the several bodies which are entitled to representation at the 1950 decennial meeting of the Convention are hereby invited to appoint not exceeding three delegates and three alternates to the meeting, which is to be held at the Hotel Statler in Washington, D. C., on Tuesday, May 9, and Wednesday, May 10, 1950.

The announcement is made at this time as a reminder of the need for the appointment of delegates according to circumstances encountered by the various organizations. However, credential forms will not be distributed until about December 1, 1949, to be returned by March 1, 1950. Experience has shown that earlier distribution of these forms has resulted in their displacement and the subsequent complication of preparing duplicate copies. Because the Pharmacopoeial offices will move from Philadelphia to New York within the year 1949, it is proposed to use the latter address only for credential forms.

Until further notice, any current correspondence on the subject should be directed to the Secretary, Adley B. Nichols, at 4738 Kingsessing Avenue, Philadelphia 43, Pa.

CARY EGGLESTON, M.D.,
President of the United States Pharmacopoeial Convention.

DEMEROL AND BARBITURATE POISONING*

John A. Strazza, Jr., M.D., Bloomfield, N. J.

Since the synthesis of the ethyl ester of methyl - phenyl - piperidine - carboxylic acid (known as demerol, dolantin, dolantal and pethidine) was announced in 1939 by Eisleb and Schaumann,[1] numerous reports have appeared ascribing beneficial effects to the use of this drug. The dangers of habit formation and physical dependence have been noted and adequately described [2] in several papers, so that the authorities have been compelled to place demerol on the list of dangerous drugs.

The actual number of deaths attributed to demerol is not known. Only a few have been reported. Autopsy material has revealed lesions in the hypothalmus and diencephalon similar to those seen in chronic alcoholism. Death was attributed to respiratory failure.

A careful review of the literature has failed to reveal any report on the use of demerol as a suicidal agent in a non-addict, or of the treatment employed in severe intoxication. It is felt, therefore, that the following case study will be interesting, timely and instructive, as demerol has become a popular drug and is being used in larger quantities every day.

CASE REPORT

A 25 year old white male physician was found unconscious, sweating and cyanotic. He had taken 75 capsules of combined seconal and nembutal (each capsule 100 milligrams) plus 50 or 60 tablets of demerol, each of 50 milligrams. He swallowed these drugs ten hours before therapy could be instituted. He took them along with some chocolate candy. Respirations were eight per minute, shallow and irregular. Pulse was strong, and regular at a rate of 60. Blood pressure was 110/70, temperature 102.6. Pupils were pin-point, tendon reflexes were all absent, and he exhibited no response to painful stimuli.

He was immediately transferred to the medical service of the Jersey City Medical Center. Catheterization produced 650 cubic centimeters of clear urine, which was acid at a specific gravity of 1.018. There was a one plus albumin, and no sugar. Determination of the barbiturate level of the urine was reported at less than 0.2 milligrams per cent. The erythrocyte count was 5 million with 95 per cent (14.4 Grams) hemoglobin. The leucocyte count was 14,000 with 71 per cent polymorphonuclear leucocytes, 27 per cent small mononuclear leucocytes, 2 per cent large monocytes, and 1 per cent eosinophiles. Blood chemistry revealed a sugar level of 128.5, non protein nitrogen of 29.9, and a blood barbiturate level too low to determine.

At gastric aspiration 600 cubic centimeters of thick chocolate material were removed for examination. Four hundred cubic centimeters of strong coffee were left in the stomach. The material obtained by lavage was evaporated over a steam bath, the residue extracted with chloroform, filtered, and evaporated again. On cooling, the material solidified to an opaque mass with the consistency of lard. Because of the oily nature of the residue a quantitative test for barbiturates could not be done. However, a portion of the oil gave a very strongly positive test for barbiturates.

Unfortunately because demerol was not immediately suspected, blood determinations were not carried out immediately. Later determinations revealed no demerol in the blood or urine.

Urticaria was noted on the dorsum of the hands and feet. An electrocardiogram revealed low voltage of the QRS complex in leads I, II, and III and slight elevation of the ST segment in leads II and III. This was interpreted as being indicative of pericardial disease.

Treatment consisted of energetic picrotoxin and metrazol therapy, and supportive measures. Intubation was performed and continuous oxygen administered.

Intravenous fluids in the form of 5 per cent glu-

*From the General Medical Service of the Jersey City, N. J., Medical Center.

1. Eisleb, O., and Schaumann, O.: Deutsche medizinische Wochenschrift, 65:967 (June 1939).

2. Weinstein, M. L.: American Journal of Surgery, 60:267 (May 1943), and Deitrich, H.: Deutsche medizinische Wochenschrift, 65:969 (June 1939), and Von Brucke, S.: Weiner klinische Wochenschrift, 53:854 (May 1940), and Kucher, I.: Klinische Wochenschrift, 19:688 (September 1940), and Himmelshach, C. K.: Journal of Pharmacology, 75:64 (January 1942), and Himmelsbach, C. K.: Journal of Pharmacology, 79:5 (January 1943).

cose in normal saline was given and picrotoxin 9 milligrams every fifteen minutes were administered intravenously through the infusion tube. Penicillin (30,000 units) was introduced intramuscularly every three hours. One hour and forty-five minutes after the institution of treatment, 9 cubic centimeters of metrazol were administered intravenously. The respirations immediately decreased to three per minute. Five minutes later, 5 cubic centimeters of coramine were given intravenously. Respirations returned to nine per minute. Forty-five minutes later, 6 cubic centimeters of metrazol were introduced intravenously. Respirations dropped to four per minute, returning slowly to nine within fifteen minutes. The respiratory rate remained between nine and twelve per minute until six hours after treatment was instituted, at which time they ceased entirely and remained in abeyance for thirty minutes. During this time, artificial respiration was given. Eight cubic centimeters of coramine were given intravenously, and following this respirations resumed at fifteen per minute.

A total of 279 milligrams of picrotoxin was given in seven hours, at which time the first sign of return of reflexes was noted. There was a slight pupillary response to light and a faint extensor reflex in the left arm. Picrotoxin was then discontinued, as it was felt that the patient's condition was incident to the effects of demerol and that picrotoxin was therefore now contraindicated. The blood pressure remained between 110 to 140 systolic and 60 to 90 diastolic. Urinary output was excellent throughout the treatment. The reflexes rapidly manifested themselves. The left pupil dilated and reacted to light after twelve hours. The patient moved spontaneously after thirty-one hours. Respirations were twenty per minute for the first time after twenty-four hours. The intubation tube was removed and oxygen discontinued after thirty-nine hours, at which time the patient began to respond to questions. The temperature reached a maximum of 104.2 twenty-four hours after admission, and then slowly returned to normal by the fifth hospital day. The pulse reached a maximum of 160 per minute twenty-four hours after admission, and, like the temperature, returned slowly to normal by the fifth hospital day. The patient received a total of 1,440,000 units of penicillin over a period of six days. He was discharged on the seventh hospital day.

Examination of the patient's room revealed a large empty vial labeled "Seconal and Nembutal" and another empty vial labeled "Demerol". Other drugs found were identified as ephedrin sulfate capsules, amodine, calcium gluconate, vitamin B complex, and epinephrine. Information obtained from the patient revealed that he suffered from hay fever, and was sensitive to barbiturates, developing urticaria after their use.

COMMENT

It is interesting to speculate as to exactly what occurred in this patient. He consumed approximately 7 grams of sodium propyl-methyl-carbinyl-allyl barbiturate (seconal) and pentibartital sodium (nembutal) and 2.5 grams of demerol. The antidotes were metrazol and picrotoxin. One wonders whether the patient would have recovered from the poisons without the antidotes. A decade ago, Gold[3] pointed out cases of recovery from slow acting barbiturates in doses as high as 6 Grams without the use of specific antidotes. The tolerance of animals and patients for the barbiturates varies tremendously. This was also demonstrated by Gold.[4] Some animals died from an oral dose of as little as 50 milligrams (per kilogram) of seconal, while others recovered from doses twice that size. He pointed out that humans have about the same sensitivity to the fatal action of barbiturates as cats. This patient consumed 100 milligrams per kilogram, and therefore might have recovered without any specific antidote.

Demerol in large doses produces marked cerebral irritability and convulsions and might conceivably serve as an antidote to the depressant action of barbiturates. The fatal doses of demerol by subcutaneous injection in animals are in the order of 150 milligrams per kilogram. Since this patient consumed 35 milligrams per kilogram it is not likely that this alone produced a near fatal result.

I believe that the combined action of barbiturates and demerol put this patient close to the point of fatal poisoning, but spontaneous recovery after such doses would not be out of the question. Nevertheless, there is no reason

3. Gold, Harry: Journal of the American Medical Association, 112:431 (Feb. 4, 1939).

4. Gold, Harry: Journal of Pharmacology, 88:260 (November 1946).

for believing that the metrazol and picrotoxin as antidotes did not prove useful; they may very well have increased his chance of survival. The decrease in respirations following metrazol is of interest. A possible explanation is that metrazol antagonized the barbiturates allowing for the depressant effect of demerol upon the respiratory center to be more evident.

SUMMARY AND CONCLUSION

A case of combined barbiturate and demerol poisoning is presented.

The treatment consisted of picrotoxin, metrazol, and supportive measures. The patient survived. The pharmacology of the combination of barbiturates and demerol is discussed briefly.

183 Broad Street

INTERNATIONAL CONGRESS ON RHEUMATIC DISEASES

More than 150 physicians from foreign countries are expected at the International Congress on Rheumatic Diseases to be held at the Waldorf Astoria in New York City from May 30 to June 3, 1949. Papers will be read at the plenary sessions which will be held in the mornings. In the afternoons, clinics will be held at several of the New York hospitals.

Many papers have been accepted for the Congress which include (in addition to presentations by prominent U. S. authorities) numerous distinguished foreign guests. Among these are:

"Rheumatism, a National Problem", Lord Horder of London.

"The Treatment of Progressive Rheumatism with Copper Salts", Jacques Forestier, Aix-les-Bains, France.

"Relations between Rheumatic Fever and Rheumatoid Arthritis", Eric Jonsson of Stockholm.

"Transfusions of Blood from Pregnant Women in Patients with Rheumatoid Arthritis", Imre Barsi-Basch of Budapest.

"Procaine Infiltration in Painful Musculoskeletal Disorders", Professor S. de Seze of Paris.

"Statistical Analysis of 1000 Cases of Rheumatoid Arthritis in Relation to Insidious and Acute Onset, Menopause, Pregnancy, Psoriasis, Ankylosing Spondylitis, and Still's Disease", Svend Clemmesen, Copenhagen.

"Some Aspects of Psychogenic Rheumatism", Dr. William Tegner of London.

"Muscle Soreness and Myosis as a Symptom of Chronic Overstraining, Especially in Neurotics", Henrik Seyfarth of Oslo.

"Chronic Polyarthritis and Psoriasis", P. Barcelo of Barcelona, Spain.

"Involvement of the Nervous System in Rheumatoid Arthritis", Veikko Laine of Heinolan, Finland.

"Periarthritis of the Shoulder", Fernando H. Ramos of Montevideo.

The official languages of the Congress will be English, French, and Spanish, but instantaneous translations of the scientific papers given at the plenary sessions will be made by means of the I.B.M. wireless system. The meeting is open, and the registration fee is $10.00.

This is a rare opportunity for New Jersey practitioners to attend one of the world's foremost medical assemblies. Write to Dr. Edwin Jordan, 2020 E. 93rd Street, Cleveland 6, Ohio, for more details.

THE NEW JERSEY ONCOLOGICAL SOCIETY

Samuel Ebenfield, M.D., Secretary, Newark

The Society held its semi-annual scientific session at St. Michael's Hospital, January 11, 1949. The meeting was presided over by the program chairman, Dr. Oscar Glass. The President, Dr. Frank S. Forte, announced that membership has now been opened to any doctor in New Jersey who is a member in good standing of his county medical society and who has an interest in the study of tumors.

The following papers were presented at this meeting (1) "Biologic Aspects of Neoplasms" by S. B. Rose, M.D.; (2) "Effect of Nutrition on Rous Chicken Sarcoma" by Paul A. Little, M.S., and (3) "A Comparison of Rous Chicken Sarcoma to Human Neoplasia" by Virginia Wuerthele-Caspe, M.D.

The meeting was brought to a close after a very able discussion by Dr. Camillie Mermod, Dr. Allen and others.

SALT: THE CARDIAC'S NEMESIS*

A. D. Dennison, Jr., M.D., Maplewood, N. J.

The true low sodium diet has been a far reaching and successful contribution to the treatment of heart disease. A modern Robinson Crusoe, with rheumatic heart disease in failure (and with normal sinus rhythm) if asked which he would take along as his one form of treatment, (a) digitalis, or (b) sodium restriction and mercurials, would choose the latter if he had had any experience with either treatment. When digitalis was the mainstay of treatment, we used to find our wards filled with dehydrated, unhappy and depressed cardiacs, stealing water from their neighbors' jugs, even drinking it out of flower pots or hot water bottles. But in wards where the true low salt diet is followed, we find contented hydrated and satisfactory appearing patients. From facing repeated episodes of cardiac edema, with a feeling of despair and helplessness, we now have an aggressive approach which will keep our patients to a satisfactory level of health.

The success of the modern treatment of the failing heart rests a great deal with the dietitian and somewhat with the nurse. Bulwarks in the treatment of congestive heart failure are: rest, digitalis, diuretics and diet.

One analysis of the "low salt" diets of a number of hospitals reveals that the sodium content may range anywhere from three to six grams. Actually the effective low sodium diet should not exceed two grams. The usual hospital "low salt" diet will result only in an irregular response to therapy, no good fortune with the seriously ill patients, and the erroneous conclusion that one is dealing with irreversible heart disease. Sodium is a vicious ion to our cardiacs. This must be clearly impressed on the minds of our nurses, dietitians and doctors, who are seeing and will see in the years to come, increasing number of patients with cardiac failure. The rationale and general basis of this feeling about sodium, rests upon the accepted premise that salt binds water. If salt is restricted, water will be lost by excretion and edema will be relieved.

The average American diet contains a daily intake of six to fifteen grams of salt. The average diet, with no salt added at the table, contains four to seven grams. The average diet, with no salt added in cooking or at the table, three to four grams. And the effective, true low sodium diet will possess less than two grams. Probably the difference in the true low sodium diet and our old, so-called "salt free" diet rests in attention to such details as salt free or washed butter, salt free bread, restriction of foods which (by accurate tables) contain a high sodium content, and avoidance of drugs and medications which contain sodium. The old salt poor diet we used for moderately edematous cardiacs runs from four to seven grams; and the old and frequently ordered "salt free" diet from three to four grams. Neither of these regimes will result in the successful removal of edema.

Why does a real salt free diet work? Four mechanisms are at work in the production of cardiac edema:

1. An increase in venous pressure, and thus an increase in capillary hydrostatic pressure. This tends to drive fluids and electrolytes into the tissues.
2. Circulatory stasis in the peripheral blood vessels. It is probable that this results in anoxia of capillary epithelium which causes increased capillary permeability. This again allows fluid to leak into the tissues.
3. A decrease in serum protein. This applies chiefly to the albumin fraction which is most concerned with exerting an osmotic force. Reduction in serum proteins is due to the anorexia, malnutrition and poor digestion.
4. Impairment of renal excretion of sodium. It is this mechanism which seems to be chiefly involved in the retention of sodium. Studies by Burch and Reaser[1] with both the regular stable sodium (Na 23) and radioactive sodium (Na 22 and Na 24) confirm this impairment of sodium excretion by the kidneys.

The mercurial diuretics, which are so successful in cardiac edema, produce a marked in-

*Read by invitation to The New Jersey Dietetic Association, February 25, 1948.

1. Burch, G. E. and Reaser, P.: Proceedings of the Society for Experimental Biology and Medicine, 63:543 (1946), and *ibid*, A Primer of Cardiology, Lea and Febiger, Philadelphia (1947).

crease in sodium excretion; the sodium diuresis being greater than the water diuresis. This can be checked by analyzing the urine sodium chloride output. Apparently, inability to excrete sodium and water is not due to retention in the glomerulus of the kidney, but to resorption in the proximal tubules. Thus, an undue amount of salt is retained in the body, and water must be retained to keep the tissues in an isotonic state. Very loosely, the normal person takes an adequate amount of salt and excretes an adequate amount. They retain what they need, excreting what they do not, and because of this they feel well. A cardiac, however, digests salt and retains such a high proportion of it that he also binds water. He can be contentedly held in sodium balance with very little because his kidneys are holding the sodium back in the body.

As the patient improves so will kidney function improve, and the damming back of the sodium will be relieved. Then, one can relax the rigidity of the absolutely low sodium diet. It is not an uncommon experience to have a patient on the verge of decompensation develop "gas", take large amounts of bicarbonate of soda or proprietary antacids and slip over the line into frank and overt edema.

The low sodium diet is not unduly expensive, but it is certainly tedious and does present certain problems in preparation. The field is cluttered with a number of similar diets, differing in some essential points. As usual in medicine, these have names attached to them; thus we have the Schroeder [7] diet, the Schemm [6] diet, the Kempner [2] diet, the Grollman [3] diet, the Karrell diet and others as well as those detailed in the manuals of various hospitals, and diets proposed in the literature but as yet not labeled. Occasionally one runs into differences of opinion about the sodium content of certain foods and there is indeed a need for standardization.

The Kempner diet [2] has been proposed mainly for hypertension. It is effective in reducing blood pressure. General opinion is that its efficacy rests in its low sodium content. It is also used in cardiac failure, but not always satisfactorily because the high fruit and sugar content create a tendency to "gas"; and the average patient in cardiac edema already has enough gastro-intestinal distress due to edema of the intestinal wall. The Grollman diet [3] has also been advocated for hypertension. One noteworthy point in the Grollman diet, is the fact that milk (a necessary element because of its protein and calcium content) contains roughly one gram of salt in 800 cubic centimeters. This is unfortunate, and Dr. Grollman suggests that the milk be dialyzed to rid it of sodium. There is now an extremely low sodium proprietary milk on the market, lonalac.[4] As many patients in cardiac failure have a hypoproteinemia, the milk protein is necessary to elevate this level. Another approach to the hypoproteinemia problem is the use of amino acid or protein hydrolysate preparations orally, but most of these have a rather high sodium content: however, one preparation, ledinac,[4] is reported to be fairly low in sodium content. Gold [5] has supplied the names of several other preparations which he reports are, "substantially free of sodium chloride". These include protein hydrolysate and protinal.[4] This is a helpful point in dietary management. The Schemm [6] diet utilizes a sound physiologic principle: if the diet and additional medications are planned to create an acid ash and, roughly speaking, keep the patient "on the acid side", then the base sodium will be withdrawn and with its withdrawal edema will be lessened. Another feature of the Schemm program is the liberal use of water which certainly dispels any discomfort from thirst, and in his opinion, improves renal function, eases the work of the kidney and protects the cellular system of the body from any degree of dehydration. In my experience in several intractable cases, the Schemm program has produced results.

Because of its simplicity, the Schroeder diet [7]

2. Kempner, W.: North Carolina Medical Journal, 8:128 (1947).
3. Grollman, A., *et. al.*: Journal of the American Medical Association, 129:533 (1945).
4. *Protein hydrolysate MRT* is a product of the Marvin R. Thompson Company. *Lonalac* is prepared by Mead Johnson. *Acidan* and *Ledinac* are Lederle products. *Protinal* is made by the National Drug Company. *Nedcurtosal* is a Winthrop Company preparation.
5. Gold, *et. al.*: Conference on Therapy, American Journal of Medicine, 3:481 (1947), and American Journal of Medicine, 3:669 (1947).
6. Schemm, E. R.: Annals of Internal Medicine, 17:952 (1942).
7. Schroeder, H. A.: The American Heart Journal, 22:141 (1941).

has been used by the writer on twenty cases during the past year, in hospital and home, for the treatment of cardiac edema in association with various types of heart disease, mainly coronary artery sclerosis. Dr. Schroeder has wisely utilized two diets both low in sodium chloride: one with one gram of sodium chloride a day (400 milligrams of sodium) and the second with 500 milligrams of sodium chloride (200 milligrams of sodium). The second may be utilized in very resistant hospital cases and the first may be helpful in the less resistant cases, or in the well compensated ambulatory patient being treated in the home. A satisfactory diet containing 200 milligrams of sodium (500 milligrams of sodium chloride) may be found.[8]

For the purpose of simplicity, there should be only one diet. the strict low sodium diet. This is not the slipshod salt free or salt poor diet of the early nineteen forties, but the rigidly controlled present day 200 to 400 milligram diet.

There may be ways of making the diet more palatable. Salt substitutes like neocurtosal[4] or others may be very effective. As sodium is the troublesome and active ion, the amount of sodium (not the amount of salt) in the diet becomes important. The terms "low salt diet", "salt free diet" and "salt poor diet" do not represent true sodium restriction, because the ion can creep into the diet from sources other than sodium chloride. The doctor should know the actual sodium content of the diet disregarding the chloride ion.

The formula is simple. The sodium ion accounts for 40 per cent of the sodium chloride intake. If a patient takes two grams of sodium chloride a day he is getting 800 milligrams of the sodium ion. If he can limit himself to the equivalent of 500 milligrams of sodium chloride, then he is taking in only 200 milligrams of sodium.

Other ways of making the diet more palatable include the use of sodium free condiments like lemon juice, paprika, garlic, vinegar, etc. Even plain mustard in water is an acceptable flavoring to some persons.

If the patient is distressed with "gas", he must be warned not to take bicarbonate of soda or any of the sodium-containing proprietary antacids. Calcium carbonate may be used to relieve this kind of "indigestion". One acceptable and effective antacid, for instance, is aciban[4] which contains calcium caseinate and calcium carbonate.

Naturally there are many prohibited foods. and doctor and dietitian must be armored with a suitable list of the offending foods. I have seen two excellent published lists, one by Grollman[9] and one by Wheeler and his associates.[10]

The physician must supervise any leaks that might slip in the medications, tooth paste, etc. The dietitian must check on the selection, preparation and serving of foods, and the local water content of sodium. This is no mean task for our dietitians, and it means an added load for the special diet department. But it is hoped that it will become so standardized with experience that ease and rapidity of preparation will be gained. The pathophysiology on which the concept of the low sodium diet is based, is well founded in experimental research. If we can have confidence in our dietetic department, we can give cardiac patients adequate water for there is a paradox in these patients: although they are wet they are dry; although they are edematous there is cellular dehydration. The accumulation of abnormal fluid is in the interstitial spaces, but not in the cells, and many of the toxic signs and symptoms so often seen in the sick cardiac, are the result of this dehydration.

Since reading this paper, I have had the opportunity of treating four patients following the principles of Gold, using the milk and water diet for the first few days of hospitalization. However, as Gold has modified and added to the original Karreli Diet, so in the treatment of these four patients was lonalac[4] used in the place of ordinary milk. This resulted in an extremely low (almost negligible) amount of sodium in the patient's diet for the first four days that they were on lonalac and water. Results have been so satisfactory, that this modification of the Karrell-Gold regime is to be continued in suitable cases. Along with the diet of water and lonalac, other therapeutic measures were, of course, utilized: digitalization, rest, mercurials and oxygen as indicated.

8. Newburgh, L. H. and Reimer, A.: Journal of the American Dietetic Association, 23:1050 (1947).
9. Grollman, A., *et. al.*: Journal of the American Medical Association, 129:533 (1945).
10. Wheeler, E. O., Bridges, W. C. and White, P. D.: Journal of the American Medical Association, 133:17 (1947).

601 Ridgewood Road

STATISTICAL RESEARCH IN THE CANCER PROGRAM IN NEW JERSEY †

EMIL FRANKEL,* Newark, N. J.

Statistical research is one of the basic elements in the state plan of cancer control. The importance of knowing the "cancer facts" of the community is fundamental to the planning and conduct of the cancer program.

The National Cancer Institute strongly recommends a well organized statistical research program to include:

(a) Analysis of cancer mortality, morbidity, and incidence statistics; (b) studies of cancer epidemiology; (c) studies of the facilities and services needed in providing care for the cancer patient; (d) studies of the nursing services required for cancer patients in hospitals, convalescent homes and in their own homes; and (e) studies of socio-economic factors in relation to the cancer problem.

As regards the statistical research program of the New Jersey Division it was considered important at the outset that the statistical information compiled should be of service to the individual physician, to organized medicine in general, to the nursing profession, to health and social workers, and to the lay public whose understanding of the basic facts are so essential in the cancer program.

We need to distinguish statistical research from the research work of the Committee on Growth of the American Cancer Society. The Committee, representing the major disciplines in medicine and the sciences basic to medical research "at its inception recognized and has proceeded on the premise that the researches necessary to achieve understanding of the abnormal mechanisms of malignant growth can have a firm basis only in a far deeper insight into the fundamental mechanisms of normal cellular growth than science and human ingenuity have thus far been able to disclose".

These researches are carried on by series of panels organized into the broad divisional groupings of physics, chemistry, biology, and clinical investigations.

CANCER MORTALITY IN NEW JERSEY

One of the first tasks undertaken by the statistical research unit of the State Service Department was the compilation and publication of the statistics on "Cancer Mortality in New Jersey — 1920-1945" from data made available by the State Health Department. Besides giving a comprehensive statistical picture of the cancer mortality trends of the state as a whole, separate reports were tendered for each of the twenty-one counties covering the following information:

a. Trend in the total number of cancer deaths in the county as a whole and for the larger municipalities for the period 1940-1945.

b. Trend in the number of cancer deaths by sex and color for the years 1940-1945.

c. Organs affected in cancer deaths; and

d. Population trends in specified age groups.

This publication has been commented upon favorably in a recent issue of the American Journal of Public Health. "With this analysis available no local cancer program should be delayed because of lack of knowledge of existing conditions".

ANALYTICAL USE OF CANCER MORTALITY STATISTICS

It will be found that on the basis of the mortality figures thus made available the cancer program in New Jersey will benefit in the following ways:

a. Observe changes that have taken place in the number of cancer deaths offering possibilities to further studies in places in which significant changes—up or down—have occurred.

b. Since the sex ratios of cancer deaths differ materially in the different counties further study is indicated.

c. The age distribution of cancer deaths and organs affected call attention to the direction which the preventive programs should take.

d. Figures concerning the shifting in the age distribution of the general population toward an

* Research Consultant, New Jersey Division, American Cancer Society.

† Paper given before State Training School, New Jersey Division, American Cancer Society, Atlantic City, December 2, 1948.

"aging" population bring out the necessity for looking ahead in the growing need for cancer treatment facilities.

CANCER PATIENTS IN NEW JERSEY HOSPITALS

The success which the cancer control and prevention movement has achieved to date has been based largely upon the response of the public to the wide-spread dissemination of the facts regarding the enormous death toll exacted by this disease.

There are sufferers from cancer who have received the benefits which modern medical science and good hospital care can give, a great many of whom have been discharged from the hospital definitely designated as having been "cured".

Moreover, there are indications that through modern diagnostic and treatment methods the death toll from cancer may be materially reduced and hope is that cancer eventually may be brought under some measure of control.

It was considered to be of real interest, therefore, to the physician, to the public health worker, as well as to the public at large, to know what became of the patients who left the hospitals some years ago and particularly to know what is their present state of health.

Accordingly a study of several thousand cancer patients treated in several general hospitals in New Jersey was undertaken, in active cooperation with the Advisory Cancer Committee of The Medical Society of New Jersey.

The facts gathered in this study are now being compiled and will be made available in the near future. These facts of interest especially to the physician will show:

1. The age of the cancer patients treated and the particular organs affected.
2. The outcome of hospital treatment in general and the incidence related specifically to sex, age, organ affected.
3. The duration of hospital treatment in the different categories.
4. The survival or cure-rate of cancer hospital patients.

Last year out of some 3,760,000 patient days furnished in all the general hospitals in New Jersey, approximately 200,000 patient days were served to cancer patients at an estimated total cost of $2,500,000.

THE CURABILITY OF CANCER

It may be real moment to summarize here the views of the Director-General of the American College of Surgeons, Dr. Franklin H. Martin, regarding the value of statistics illustrating the Curability of Cancer:

1. To impress upon the practitioners of scientific medicine, and indirectly upon the public, the fact that carcinoma is curable by the use of well known and established methods of treatment.
2. To convince the profession and the public that even though cancer is already apparently in a later stage of its development, if it is subjected to proper treatment, its progress may often be delayed, and the disease not infrequently cured.
3. To point out in a convincing manner that if all cases of cancer could be diagnosed early and treated promptly in their incipiency, the annual death rate from the disease would be reduced very materially.
4. To furnish convincing evidence to our hospitals, our local medical societies, and our already established clinics, and encourage them to furnish facilities whereby every physician who is practicing scientific medicine will have available the necessary equipment and trained aids to insure the comprehensive examination of his patients.

THE CONNECTICUT PROJECT

In Connecticut, statistical research in cancer has been carried on extensively for fifteen years. In a statistical analysis by Eleanor J. MacDonald, the following conclusions are reached: "The facts are here. The persistent stimulation of conscious knowledge of the disease and its implications among the profession and the populace . . . are the tools with which the prognosis may be improved".

STATISTICS ON CANCER CLINICS

The availability of cancer clinics to a large segment of the population is one of the cardinal tenets in the cancer control program. A considerable proportion of the funds of the American Cancer Society go toward the equipping and maintenance of cancer clinics.

It was considered important, therefore, to establish a state-wide system of reporting of the activities of these cancer clinics.

On the basis of the certified reports of free services to individual cancer clinic patients it will be possible to compile statistics:

(1) On the number indigent and medically in-

digent patients treated currently in nearly thirty cancer clinics receiving funds from the American Cancer Society; (2) on the sex and age characteristics of the cancer patient which will allow the observation to what extent persons in the younger age-groups seek the clinic's advice; (3) the number of cancer visits and the extent of laboratory services and x-ray examinations involved in the treatment of cancer clinic patients.

These cancer clinic figures available over a considerable period of time will afford illuminating observations on the trends in this phase of the cancer efforts of the community. The records of individual clinic patients will permit follow-up studies to be made at a later date which should confirm the beneficial results of early recognition of cancer and of effective treatment.

TRAINING IN CANCER CONTROL ADMINISTRATION

It may be of interest to examine, at this point, the efforts in statistical research of the New Jersey Division in the light of the recent announcement of the training course in cancer control administration at Yale University.

The following is quoted from a communication of Dr. Edward M. Cohart, Cancer Control Section, Department of Public Health, Yale University School of Medicine:

> "A considerable portion of the time of the course will be devoted to those items which fall into the category of cancer control administration, namely, budgets and legislation, *records and statistical research,* health education, and service as included under the headings of diagnosis, treatment, case-finding, follow-up and custodial care.
>
> "In biostatistics, the significance of our aging population will be discussed. More specifically this section of the course will deal with the statistics of cancer incidence, prevalence, prognosis and mortality with breakdown by sex, site, color, age, occupational hazard, etc.
>
> "The proper approaches to and the technics of health education with special emphasis on cancer will be brought out. This will include both lay and professional education.
>
> "Community resources which either directly or indirectly come into play in the care of cancer will be explored. In this connection the role of the official and non-official agencies, the private physician and dentist, the nurse, the clinic and the hospital will be developed. A consideration of socio-economic factors and the problems of long-term care will be included."

SUMMARY

"Social and Medical Bookkeeping" are essential in the cancer program. It was considered "good business" for the New Jersey Division to set up a comprehensive bookkeeping system in order to have a record of its financial transactions and to have the books audited periodically by a certified public accountant to render an accurate account of its financial stewardship to the public.

The statistical research program may be regarded as "social and medical bookkeeping". Its purpose is to furnish the "cancer facts" on a state-wide and local basis. First, that the magnitude and depth of the cancer problem in New Jersey be understood; second, that the requisite statistical information be available in the day-by-day cancer activities of the State Office and the component county chapters; and third and last, that the factual ground work be laid for the continuous advancement of the larger program of cancer prevention and control.

ACKNOWLEDGMENTS

It is a privilege to have had the opportunity to inaugurate this statistical research program to the New Jersey Division of the American Cancer Society.

This had been made possible in the first place through the wholehearted support of Dr. Thomas B. Lee, Dr. William O. Wuester, Dr. Joseph I. Echikson, and Dr. Royal A. Schaaf. The Statistical Unit was fortunate in having the indispensable backing of Mr. George E. Stringfellow, the President of the New Jersey Division.

Thanks are due to the Bureau of Vital Statistics of the State Department of Health for having made available its figures on cancer mortality, and to physicians, hospital administrators, nurses, medical record librarians and many others for aid in the program.

700 Broad Street

STATE ACTIVITIES

REPORT OF NEW JERSEY DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

November 30 and December 1, 1948

The Medical Society of New Jersey was represented at the interim session of the House of Delegates of the American Medical Association, November 30 and December 1, 1948, by the five regularly elected delegates: Thomas K. Lewis of Camden; J. Wallace Hurff of Newark; David B. Allman of Atlantic City; Joseph F. Londrigan of Hoboken; and William F. Costello of Dover. Other officers and staff members of the Society present at the session included: Dr. William E. Bray, Chairman of the Public Relations Committee; Dr. Norman Scott, Director, Distribution of Medical Care; Dr. Frederic J. Quigley, Executive Secretary of the Subcommittee on Legislation; and Mr. James E. Bryan, Executive Officer.

Dr. Lewis was the A.M.A. chairman of the Reference Committee on Legislation and Public Relations; Dr. Hurff was a member of the Reference Committee on Miscellaneous Business; and Dr. Londrigan of the Special Reference Committee on Medical Service and Prepayment Insurance Plans.

First action of the House of Delegates was the selection of Dr. W. L. Pressly of South Carolina, for the annual General Practitioner's Award.

The most important action of the session was a resolution calling for a special assessment of $25 per member. This was proposed by the Reference Committee on Legislation and Public Relations of which our Dr. Lewis was chairman. It was stimulated by a recommendation of the Board of Trustees of the A.M.A. as well as by resolutions introduced by a number of state societies. The report of the Reference Committee as finally adopted expressed the confidence of the House of Delegates in the Board of Trustees; authorized the Trustees to levy an assessment of $25 on members of the A.M.A.; directed the expansion of the Washington office and its placement directly under the supervision of the Board of Trustees; recommended immediate employment of public relations counsel; directed that this counsel disseminate information to the public, Congress, and the state and county medical societies, as well as to individual physicians; declared that the A.M.A. is "determined to protect and foster the high standards of medical care for the public", that it is "steadfastly opposed to the regimentation and socialization of American medicine", and that it is "confident that an intelligent and informed public will join us in our crusade to ever improve the health and welfare of the American people."

This report was adopted without a dissenting voice and an important concomitant was the approval of a proposal by the Board of Trustees of a steering committee to coordinate all public relations activities and to plan the use of the educational fund.[1]

A second matter of major importance was the proposal of the Blue-Cross Blue-Shield Commission to establish a national enrollment agency and a national insurance company to supplement the coverage of voluntary, medical and health insurance plans throughout the country. The House of Delegates approved a national enrollment agency for the further development of coordination and reciprocity among the local plans; disapproved the proposal for the formation of a national insurance company; defined strictly the field of operation of Associated Medical Care Plans and recommended that A.M.C.P. make the changes in its constitution and by-laws necessary to take the A.M.C.P. out of the policy-making field. Finally, the House of Delegates reaffirmed the authority of the Council on Medical Service to promote voluntary prepayment plan programs throughout the United States.

A third matter of prime importance was the need of the armed forces for medical personnel. A resolution on this was presented by the New Jersey delegates. This asked the A.M.A.

1. *Note by Dr. Lewis:* There were a number of resolutions presented by several states suggesting such an assessment. There was one from the Board of Trustees asking for the privilege of levying an assessment at their discretion. The committee decided it might be better to have this come as a definite directive *from* the House of Delegates rather than giving the Trustees discretionary powers. On the floor, no one questioned the advisability of such an assessment; discussion was only about the means of collecting it. California, faced by Governor Warren's determination to establish compulsory health insurance, levied $100 annually for several years. I am not clear as to the mechanics of the collection, but it is important and urgent that a large majority of the membership participate in this assessment. At this time Mr. Ewing was on the spot. He stated the A.M.A. was raising a fund for lobbying for their own selfish interests. I wrote and suggested some representative of a medical association be permitted to appear on his program and give the doctor's side of the story.

to recognize that there is a serious deficit of medical officers and that there appears to be no prospect (under present methods) of overcoming this deficit. The A.M.A. would also be asked to recognize "its responsibility to aid the government in obtaining a sufficient complement of young physicians and qualified specialists for the armed forces." Therefore, the resolution proposed that the National Security Resources Board be given statutory authority to meet the requirements of the armed forces for medical personnel under a plan embodying the following:

(1) Deferment of recent graduates until completion of an internship not to exceed two years.

(2) Deferment of medical students to complete their medical education and an internship, the latter not to exceed two years.

(3) Obligation of the physicians constituting these two groups at completion of internship to accept one year of service in the armed forces regardless of their attained age.

(4) Acquisition of the needed complement of specialists and other specially qualified physicians on a contract basis without regard to age limitations and on a salary sufficient to attract such personnel.

(5) A survey of the personnel of medical teaching institutions to the end that each institution release one or more of its staff for a period of at least one year for service with the armed forces.

This resolution [2] comprised the only practical suggestion offered for solution of this urgent problem short of a change in the selective service act to permit the drafting of physicians above the age of 26, this being the limit for all other persons.

The report of the Council on National Emergency Medical Service contented itself with a reiteration of its opposition to "any special legislation which directly or indirectly singles out the medical profession for registration or draft categories other than those established for their fellow citizens."

Unfortunately, the proposal offered by the New Jersey delegation was referred without recommendation to the Council on National Emergency Medical Service. This Council, however, has been urged to continue its efforts to bring about maximum economy in the use of physicians in the armed forces; to consolidate the facilities for the hospital care of the several armed forces; to reduce the patient load in military hospitals by eliminating as far as possible non-military patients.

With regard to the much discussed question of the care of veterans with non-service connected disabilities in government hospitals, the House of Delegates approved current efforts to reach an agreement with veterans' organizations and the Veterans Administration on a program whereby such veterans would be able to obtain medical and hospital care through physicians and hospitals of their own choice with their bills being paid through an indemnity or service contract to be underwritten by non-profit medical and hospital insurance plans.[3]

The House interrupted its regular order of business to adopt by acclamation a resolution awarding a certificate of appreciation and a gold medal "emblematic of outstanding effort for the public welfare on a national level" to Reverend Alphonse M. Schwitalla, S. J., Dean of the Medical School of St. Louis University.

The House also adopted a resolution reversing a previous action whereby the A.M.A. had been placed on record as requesting federal authorities to recompense physicians serving with draft boards for examination of candidates for the armed forces. Thus, the A.M.A. no longer asks that such compensation be provided.

The House of Delegates directed that the secretary of the A.M.A. remind county societies that members accepting rebates are "violating our principles of medical ethics" and recommending "that each component society take appropriate action whenever this situation exists." It was further decided that the Board of Trustees of A.M.A. appoint a committee to investigate all phases of this subject and report to the House of Delegates at the next supplemental session. It was finally recommended that "the constituent state associations endeavor to have legislation introduced with the purpose of making the practice of rebating to or by physicians illegal."

Observing that "no amount of medical care of persons already sick will substantially reduce the incidence of illness" and reminding us that "large numbers of local areas and counties in the United States are not now and never have been covered by adequate sanitary and other public health services", the House of Delegates

2. *Note by Dr. Lewis:* I would like to call attention to the Hoover Report which received publicity on the matter of Veterans Hospitals. This brought out the fact that there is a frightful waste of medical personnel in the armed services. Many Veterans Hospitals are not filled and 80 per cent of the occupancy consists of veterans with non-service connected disabilities. These patients pay nothing for their hospitalization. When the VA built hospitals, the cost of construction was double the cost of similar institutions built by private enterprise.

3. *Note by Dr. Lewis:* We did not come out with any specific recommendations because there was friction within the committee. A health insurance policy for Veterans under certain income levels was suggested. This is complicated and involves an uninsurable group. We did not come out against it because it was a matter of discussion and this did not close the door to it. I think the VA itself is uneasy about what it is facing and is looking to us for help. If we can get the support of the American Legion and other veterans' organizations we can probably block the huge hospital construction plan. The special A.M.A. committee is still working on this.

stated that "the medical profession has now the opportunity to exert constructive leadership in this matter (of promoting the organization of adequate full-time professional local health services) through the national, constituent state and component county medical societies." It therefore resolved:

"We reaffirm our abiding interest in the necessity for the provision of full-time, modern public health services at the local and community level . . . ; that the U. S. Public Health Service be commended for its efforts for the further development of local health units . . . and . . . that the Board of Trustees be commended for its efforts in furthering full-time local health units and urged to continue actively all proper procedures to the end that local public health services shall become adequate throughout the nation."

In other important actions, the House of Delegates:

1. Endorsed and provided for continuance of efforts to obtain adequate financial support for medical schools through a proposed "National Foundation for Medical Education";

2. Provided that the Council on Medical Education and Hospitals reevaluate basic teaching programs in undergraduate medical schools and restudy the overemphasis on specialty board certification, looking toward greater emphasis upon the supply of sufficient general practitioners to meet the needs of the people;

3. That the A.M.A. request that two members of the Council on Medical Education and Hospitals be appointed on the Advisory Board for Medical Specialties instead of maintaining only the present informal liaison between these two groups;

4. Recommended that a two-year rotating internship be arranged as generally as possible in order to reduce the gap between the 6700 persons available and the 9200 approved internships;

5. Directed that, since "The basic and most effective form of public relations is that which emanates from the doctor's office", there will hereafter be a wider dissemination of public relations material emanating from A.M.A. headquarters;

6. Reiterated its endorsement of voluntary medical service plans and urged the rank and file of the profession "to participate in and give wholehearted support to the operation of these duly authorized and approved medical service plans"; providing also for the "widest possible publicity as to the purpose of and benefits to be derived from non-profit, voluntary prepayment medical service plans."

RESULTS OF CHILD HEALTH SURVEY

Publication of the findings of the recently completed 2½-year study of child health services will be marked by a dinner, Saturday, April 2, in New York City. A nationally known layman as well as an outstanding authority in medicine and public health are being invited to be guest speakers. The two-volume report, which is now in press, is being published by the Commonweath Fund of New York.

EXTRA-SENSORY PERCEPTION

THE ROLE OF THE PHYSICIAN

A Talk by RUSSELL G. MACROBERT, M.D., Attending Neuropsychiatrist
Lenox Hill Hospital, New York

at the

Academy of Medicine, 91 Lincoln Park, Newark, N. J.

WEDNESDAY, MARCH 16, at 8:45 P. M.

Auspices: New Jersey Neuropsychiatric Association

ALL PHYSICIANS WELCOME

TESTIMONIAL TO DR. DONOHOE

Dr. Lucius F. Donohoe is the Senior Fellow of The Medical Society of New Jersey. He became president of our state society in 1924, and is one of the very few men to have been president for more than one year. We are, however, not the only organization which has sought to honor Dr. Donohoe. Among the many other groups which have saluted him, the one closest to his heart is probably the Bayonne Hospital and Dispensary. And on February 10, 1949, this institution once again paused to place on record their feelings about Dr. Donohoe. At a testimonial dinner, attended by many of the distinguished names in civic and professional life, the honored guest was greeted by this resolution:

As Dr. Lucius F. Donohoe completes his 60th year of the practice of medicine, we honor and salute him. We honor and esteem him for his charity and his humanity, for the services rendered by him to his city, state and nation; for over half a century of labor for this, our hospital; for his civic accomplishments; for his youthful spirit and cordiality. We wish him health and happiness so that he may continue for many years, his labors for this hospital.

—To which tribute, his colleagues in The Medical Society of New Jersey, say "we too".

A COMPROMISE MEDICAL PLAN

Dr. Louis A. Schneider, a member of the Hudson County Medical Society, has offered, and the Publication Committee has authorized the printing of, this "compromise medical care plan". The views expressed are, of course, those of Dr. Schneider, and not necessarily the views of The Medical Society of New Jersey, the Publication Committee, nor of any county medical society.

I am a great believer in the American way of life. The promise of freedom is fulfilled in America to a greater degree than in any country in the world. Yet there are many inequalities in our present system because of the inability of the mass of our people to share or have equal access to some of the primary essentials of life, such as food, a home and adequate medical services. Whatever we call it there must be an extension of the minimum of social decencies and comforts to cover all the people.

The trouble with our profession is that we *know* that there is not enough adequate medical care available to the low income group. Yet we have not challenged this. We have not encouraged bringing these facts to the surface. Good medical care plans have often been dismissed because they have looked impossible or too costly.

With the present administration set upon some definite policy of socialization of medicine, it is up to the medical practitioners to propose some concrete plan whereby everyone in this country will have access to all the available scientific knowledge that medicine has to offer. The important question now is not whether changes will come, but what form they will take, how soon they will appear, and what we can do to control them. Sickness is an ugly and costly thing. Organized medicine talks only about enlarging existing medical and surgical plans, about the millions who are in some sort of private insurance plan. These plans pay something towards hospitalization fees, but do not reach those who need it most; the low income group. Furthermore, hospitalization and surgical insurance do not make available all the medical diagnostic facilities to all the people.

We have all read about the chaos existing under their system of socialization in Great Britain. Many practices have dropped 50 per cent. In some areas, there are not enough "per capita" patients to fill the panels. Those who do have the 4000 per capita are so occupied that it is impossible for them to give adequate time to each patient.

Under the New Zealand system, every person is entitled, without cost to himself, to such medical care as is ordinarily given by general practitioners. Each doctor is entitled to receive $1.50 for each prescribed service. After 9 p. m. the fee is $2.50. All pharmaceutical and state hospital benefits are provided free of cost to the patient. When a patient visits a doctor, he signs a form; the form is also signed by the doctor and sent to the local health official. Under this system the patient is free to visit as many doctors as he wishes per day or per year "without cost" to himself. He may obtain a prescription from each doctor, which he may have filled without cost to himself. Under this system medical services are costing each patient about $60 per annum through taxation; it has lowered the prestige of the profession due to abuses by unscrupulous practitioners. Thus, a form can be filled in for more visits than the patient paid to the doctors;

signatures can be forged; forms can be filled in by friends and there is no competent check on medical claims other than by clerks whose only duty is to check the amount submitted to the treasury every month.

Such a system does not improve medical care or raise the quality of practice. We must present a plan that will not saddle the profession with a panel system under which specific patients are assigned in job lots to specific doctors. Yet that is what we are going to get unless some concrete plan is proposed to offset the trend.

A joint statement issued by Senators Murray, Wagner and McGrath and Representative Dingell made the following claims for the new insurance bills (S. 5 and H. R. 783):

"Eighty-five per cent of the population will be covered, self-employed persons being included along with salaried workers and wage earners. Those eligible will be entitled to medical and dental services from general practitioners and specialists, home nursing care, hospital care, laboratory service, roentgenograms, prescribed medicines, eye glasses and special appliances. There will be free choice of physician or dentist and the right to change one's choice. Participation by physicians, dentists, nurses and hospitals will be optional. These guarantees apply to organized groups of practitioners, clinics, consumer cooperatives and similar health service plans as well as to individuals. Every hospital that participates is guaranteed freedom from governmental supervision or control. The bills guarantee that payments to providers of professional services will be fair and adequate. The method of payment is to be decided by those practitioners who furnish the service.

The plan that I now propose for your consideration will incorporate the best parts of government socialization yet retain individual choice of physician and make available all the advanced medical technical knowledge to everyone.

I first propose that every individual below a certain income have complete hospital and surgical insurance. Physicians are to be paid for hospital visits. Surgical fees will be commensurate with the services rendered, taking into consideration that the fees would be much lower because of the income group involved.

As a practicing physician with twenty years' experience I have found that the only difference in medical diagnosis and care that I can render any two patients that come to my office is in their ability to pay for diagnostic services. It is not difficult for the one who can afford it, to obtain all the necessary laboratory diagnostic aids; yet these facilities are not available to the poorer patient. The answer does not lie in sending the poor patient to a clinic. Too often they can't take time to go through the clinic routine. When a physician sends a patient to the clinic he never sees him again. The testing for tuberculosis and drives for early diagnosis of cancer and heart conditions reach but a small proportion of the population. We see thousands of people in our offices every year, who have signs and symptoms of early diseases. How can we practice preventive medicine and early diagnosis if these people, for economic reasons, cannot have access to diagnostic facilities for an early diagnosis?

Under my plan, I would set up diagnostic centers, preferably in hospitals. Every physician should have the right to send a patient to these centers for any diagnostic work necessary to aid him for his diagnosis. The report to be returned to the physician. These resources should be free to every individual under a stated income level. There isn't too much difference between this and many of the services (such as Wassermann's, sputum examinations, smears, etc.) that are given free through our county laboratories except that I would include all diagnostic aids necessary for a diagnosis.

The specialists who interpret the laboratory work should be paid salaries by the year and not per capita to avoid any tendency to fee splitting. These diagnostic centers will not deprive the specialists of their private practice since my plan deals with a low income group, most of whom cannot afford a specialist's fee to begin with.

Under this plan, everyone would pay for his office visits, choose his own physician and enjoy a complete diagnostic service. How about those who cannot afford such fees? For them, a project such as the Newark Health Plan * would be set up, so that on their behalf, fees would be paid to the practitioners of their choice. It will be recalled that for many years, the city of Newark tried the salaried district physician system. As a result:

A. Family had no free choice of physician; had no confidence in the physician and often abused and insulted him.

B. In rush periods, a physician was overworked and received a pittance per call; he could hardly be expected to be enthusiastic in his work.

In 1943 that system was changed; the patient now has free choice of physician. If the family is on relief, the Relief Department pays; and if not on relief but medically in-

* This plan has been accepted by The Medical Society and is detailed on page 597 of the December 1948, JOURNAL of The Medical Society of New Jersey, 45:596.

digent, the Health Department pays. The medical society is given monthly payment and pays physicians directly. The Society and Health Department representatives cooperate to regulate and prevent abuses. As a result, the patient is pleased and has confidence in the doctor; the physician gives the same service as to any patient and is paid a proper fee; payment is certain; and, strange to say, the system works smoother and is costing less than the previous unsatisfactory arrangement.

Why can't a similar system be set up on a county and state level? It should, of course, include full diagnostic services. Where will the money come from to defray expenses for such a plan? In the last budget as printed in the local papers, Hudson county is paying out more than nine million dollars in salaries, and for the maintenance of our psychotic, epileptic, feeble minded and tuberculous patients, committed indigents, child welfare cases, care of the blind, and to the county hospitals. This money is derived from local taxes. This is in addition to the thousands of dollars that every municipality spends for indigent patients requiring care in local institutions.

The money for these agencies comes from the general tax fund furnished by all the people of the county. I would endeavor to preserve the existing federal-state relationship by supporting such a plan through federal grants to be derived from general taxes in a manner similar to the unemployment insurance program.

To summarize under my plan, every one within a specified income group would (1) have complete hospital and surgical insurance; (2) would have a choice of physician whom they pay for their visit; (3) everyone within this group would have access to all the available diagnostic facilities through physicians of their choice; (4) the indigent would have the same medical care as any other economic group removing from them the stigma of begging for medical services; (5) The physician will raise his own professional standards through added diagnostic aids. He will be paid for many patients whom he now treats free, both in clinics and in the wards.

Louis A. Schneider, M.D.,
West New York, N. J.

PEDIATRICS FOR THE GENERAL PRACTITIONER

Wednesday, March 23, has been picked for a down-to-earth practical discussion on certain pediatric problems faced by the general practitioners. The conference will be held at the Barnert Memorial Hospital, Paterson (Broadway at 30th Street) and will open at 10 a. m. Luncheon will be available at the hospital for one dollar. Here is the program:

10:00 a. m.—Sickle Cell Anemia—Edna C. Friedman, M.D.
10:45 a. m.—Anesthesia in Children—Irving R. Hayman, M.D.
11:30 a. m.—Myocardial Fibrosis in Infancy—A. E. Schefrin, M.D.
12:15 p. m.—Tuberculous Meningitis — James P. Morril, M.D.
1:00 p. m.—Luncheon at the hospital.
2:00 p. m.—Facts and Trends in Neonatal Health —Julius Levy, M.D.
3:00 p. m.—Epidemic Diarrhea in the Newborn—Arthur Heyman, M.D.
4:00 p. m.—Round Table discussion of self regulation and other infant feeding technics.

Harry Bakwin, M.D., of New York University will be moderator. Physicians intending to attend should write to Dr. Sidney Gelman of 600 East 27th Street, Paterson 4, N. J. Please indicate if you are having luncheon at the hospital. This project is under the auspices of the New Jersey Fellows of the American Academy of Pediatrics.

CALLING CORNELL ALUMNI

Medical alumni are reminded to mark March 24 in their calendars. This day—a Thursday—is a special alumni day with a star-studded program of short scientific papers, surgical demonstrations, special luncheons, business meetings, and a Waldorf-Astoria dinner dance. To get the detailed program write to the executive secretary of the Alumni Association, room F-110 at the Cornell Medical College, 1300 York Avenue, New York City.

QUANTITATIVE SEROLOGIC TESTS FOR SYPHILIS

To Be a Routine Procedure in the State Laboratory

A. J. Casselman, M.D., Dr. P. H.,
Director, Bureau of Laboratories, N. J. State Department of Health

An increased serologic service for physicians will be undertaken in the near future by the laboratory of the New Jersey State Department of Health. Quantitative tests for syphilis, which in the past have been done only upon request, will be performed routinely on all positive specimens. Although these tests are an added burden upon the laboratory, the service will be undertaken because of the great value of the test as a measure of progress of the infection and the effectiveness of treatment.

The Mazzini test will be used for screening purposes. Sera showing three plus or four plus, with routine qualitative Mazzini test, will then receive a quantitative Mazzini test and also be checked with a Kolmer complement fixation test and the Venereal Disease Research Laboratory flocculation test. The V.D.R.L. test is similar to the Mazzini test in sensitivity and performance but the antigen is made from the more highly purified active lipoids, pure colorless cardilipis, and pure colorless lecithin. The purified cholesterol is the same in both antigens. The more highly purified lipoids have increased the specificity of the tests for syphilis in cases of malaria and some other metabolic disturbances without decreasing the sensitivity.

All spinal fluids will be examined with the Kolmer complement fixation test because the flocculation tests are not satisfactory for this purpose.

The quantitative test is performed by making serial dilutions of the usual amount of serum (as now used for the qualitative test) with equal parts of saline until the dilution is reached which shows less than a three plus reaction. Positive reactions in the various dilutions give an estimate of the amount of reagin in the serum.

The reports will be made on forms which show the dilutions producing plus four or weaker reactions. A sample is given below:

Undiluted	1:2	1:4	1:8	1:16	1:32	1:64	1:128
4	4	2	0				

A dilution of 1:2 means that the serum has been diluted to ½ strength. In the next test the serum has been diluted to ¼ strength, and so on. Frequently the results are referred to without mentioning the dilutions, as follows: 4 4 2 0. This result indicates a plus four reaction in the undiluted serum and the ½ dilution, and a plus two reaction in the ¼ dilution and a negative reaction in the ⅛ dilution. If the report were 4 3 1 this would indicate a plus four reaction in the undiluted serum, a plus three in the ½ dilution and a plus one in the ¼ dilution. A report of 4 2 0 would indicate a plus four reaction only in the undiluted serum, a plus two in the ½ dilution and no reaction in the ¼ dilution.

In an old infection, a high titer is to be expected even after adequate treatment has been given. The older the infection, the more likely is the titer of reagin to be high, and the more prolonged is the cure as measured by a reduction in the titer of reagin. The presence of a high titer alone is insufficient evidence of the need for continued treatment beyond the recommended schedules. A sharp rise in titer remaining for at least two sucessive tests, however, is considered evidence of a need for continued treatment.

Quantitative blood tests for reagin are of special importance in the rapid treatment of early syphilis with penicillin. The rapid reduction of the amount of reagin in the serum until it disappears almost completely, as shown by a negative test, suggests that the penicillin was effective in producing a cure. Sustained increases in the amount of reagin as shown by positive reactions in higher dilutions suggest a relapse or failure of cure, and may indicate the need for further treatment.

OBITUARY

DR. FRANK GLASSNER

Dr. Frank Glassner of Roselle, died suddenly on February 10 after a one-day illness.

Dr. Glassner, who was born in Poland in 1911, was a graduate pharmacist and received his medical degree from the University of Maryland Medical School in 1936. He interned at the Irvington General Hospital and at the Alexian Brothers Hospital. During World War II, Dr. Glassner served as a lieutenant in the Navy Medical Corps. He was an associate in medicine at the Alexian Brothers Hospital and an associate in cardiology at St. Elizabeth Hospital, Elizabeth.

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

T. Bruce Dickson, M.D., Reporter

The regular monthly meeting of the *Burlington County Medical Society* was held on February 10, at the Riverton Country Club. Dr. Sparks, president, called the meeting to order. He introduced the speaker of the evening, Dr. Harry L. Rogers of Philadelphia, who spoke on "The Modern Trend in Allergy".

Dr. Luis Viteri, reporting for the Post-Graduate Committee, stated that there would be no series of lectures this year because of the lack of interest shown by the members of the County Society.

The Welfare Committee was represented by Dr. S. Emlen Stokes, who stated that several of the Old Age Assistance bills were not approved because some were arriving late and others due to the insufficient explanation of charges.

Dr. Joseph Kuder of the Public Relations Committee requested that the April meeting of the County Society be dedicated to the discussion of "State Medicine". This request was granted and it is hoped that all the members and their wives will be present.

Dr. William F. Betsch of Moorestown was elected to the County Society. Elected to Emeritus membership in the County Society were Dr. Clinton D. Mendenhall of Bordentown and Dr. John S. Conroy of Burlington.

The following resignations were accepted with regret: Dr. Anthony V. Ziccardi of Mapleshade; Dr. Adolphe D. Fischback of Pemberton; and Dr. Charles S. Shapiro of Mapleshade.

Dr. Edward J. Muldoon of Burlington transferred his membership from this county to West Point, Georgia.

HUNTERDON COUNTY

Henry A. Davidson, M.D., Reporter

The Union Forge Nursing Home was the locale of the first 1949 meeting of the *Hunterdon County Medical Society* on the evening of January 25. Mr. James E. Bryan, Executive Officer of The Medical Society of New Jersey, was the guest of honor and spoke briefly of the State Society's public relations program and of the factors behind the A.M.A. special assessment. In response to the State Society's request for the designation of personnel for a speakers' bureau, Dr. Edwin C. Merrill, president, made appointments of members of the county society to participate in the training course for medical speakers. On motion of the treasurer, Dr. B. S. Fuhrmann, the Society endorsed the imposition of a $25 special assessment. The rest of the evening was devoted to a discussion of the role of Hunterdon County's private practitioners in the organization and operation of the proposed hospital and health center planned for this area. The chair appointed Dr. Germain, Dr. Davidson, and Dr. Fritz a special committee to meet with a committee of the hospital trustees to review certain details of the hospital organization.

MERCER COUNTY

A. D. Hutchinson, M.D., Reporter

Dr. I. S. Ravdin of the University of Pennsylvania addressed the Society at the February meeting, on the subject of "Gall Bladder Disease".

Treasurer Reisinger submitted a detailed report, which showed the treasury to be in an excellent condition of prosperity.

The subjects of "The General Practitioner Award," "Rheumatic Fever" and "Eyemobile" after thorough discussion were referred to the Public Relations Committee.

Dr. Sica stated that the State Society will discuss the possibility of utilizing, in the near future, the recent full page article appearing in the public press, on the subject of national compulsory health insurance.

The Society, without undue discussion, unanimously voted to uphold the A.M.A. assessment for educational purposes relative to compulsory health insurance.

Dr. Wikoff reported that the names of 12 members had been submitted to the Speakers Bureau. These physicians will be present at the briefing meeting on February 20, at the Stacy-Trent Hotel.

Drs. R. W. Davidson, A. S. Fell, Wm. J. Harman, J. B. Sill, I. F. P. Turner, and B. W. MacFarland were nominated for Emeritus membership in The Medical Society of New Jersey and Affiliate Membership in the A.M.A.

Drs. Thomas E. Cone, Jr., P. T. Williams, J. H. Witman were elected Active members; Drs. Michael Rachunis and Levon D. Yazujian were elected Active members on transfer; Drs. D. H. Robinson and H. E. Topley were elected to Associate membership.

MIDDLESEX COUNTY

William M. Winn, M.D., Reporter

The regular monthly meeting of the *Middlesex County Medical Society* was held at the Roosevelt Hospital, Metuchen, January 19. The meeting was called to order at 9:15 p. m. by Dr. F. M. Clarke, President. The Society's policy of holding alternate scientific and business meetings was inaugurated.

Dr. Clarke introduced Dr. Arthur C. DeGraff, professor of Therapeutics, New York University College of Medicine, who spoke on "Evaluation of Methods Used in the Treatment of Congestive Heart Failure".

A short business meeting then followed.

On recommendation of Dr. Marshall Smith, chairman of the Medical Ethics Committee, Dr. William M. Winn of Perth Amboy was elected to full membership from Associate membership, and Dr. Kenneth W. Jones, also of Perth Amboy, was elected to a two year period of Associate membership.

Dr. Smith announced that the preparation of the "Principles of Medical Ethics" has been completed by Dr. F. M. Hoffman, with the exception of the sections on Contract Practice. A discussion on this

will be held at the next meeting and the complete revision of the "Principles of Medical Ethics" brought before the Society for adoption.

Dr. John H. Rowland announced that the N. J. Heart Society Drive was headed by P. B. Barish of Highland Park, and the goal was $10,000.

Communication from Dr. Bray, chairman of The Medical Society of New Jersey Public Relations Committee, asked for a list of speakers to be submitted to the State Headquarters to speak in opposition to the proposed National Health Insurance Act.

SALEM COUNTY

Alvin S. Mason, M.D., Reporter

The regular monthly meeting of the *Salem County Medical Society* was held on January 21, at the duPont Penns Grove Club, Carney's Point.

The meeting was called to order by DR. D. N. NEANDER. The order of business was waived so that DR. T. J. BOLGER of Wilmington, Delaware, might speak on "The Treatment of Burns".

The society had the pleasure of a visit by DR. HORNBERGER, President of The Medical Society of New Jersey, and MR. BRYAN, Executive Officer of the same body. The latter, just returning from a meeting of the House of Delegates of the A.M.A., was in a good position to explain the additional assessment of $25. A motion to pay this special assessment was passed without dissent.

DR. C. P. LUMMIS, of Penns Grove tendered his resignation as an active member of the Society due to failing health. The Society made him an Honorary member.

SOMERSET COUNTY

H. E. Cook, M.D., Reporter

The regular monthly meeting of the *Somerset County Medical Society* was held on January 13, at the Somerset Hospital Nurses' Auditorium with DR. A. F. MANGELSDORFF presiding.

This meeting was specifically designated as an open forum to permit a free discussion of current medical problems and issues which confront the entire profession at the present time. These problems, and the role to be filled by our county medical society and its individual members, were considered and discussed from a local, state, and national aspect. Two important decisions evolved from these discussions. First, that a more diligent effort would be made to get medical service information before the local press. Second, a committee consisting of Dr. A. P. Gewanter, Dr. Irving Klompus, and Dr. Lewis C. Fritts were appointed to investigate the availability of medical care in Somerset County.

DR. J. MINTZ, North Plainfield, N. J., was elected to membership.

SUSSEX COUNTY

R. A. Weinstein, M.D., Reporter

The regular meeting of the *Sussex County Medical Society* was held at the Cochran House, Newton, on December 7, 1948. DR. LESTER EDDY, President, called the meeting to order at 9:30 p. m.

The president read a letter from Mrs. Gertrude Buch, R.N., relative to a Cerebral Palsy Clinic which is to be organized in Sussex County. The Clinic is to be supervised by Drs. Winthrop Phelps and Sidney Keats. Dr. Weinstein who headed a committee to investigate this Clinic requested that the County Society accept the recommendations of the committee to support the Clinic. After discussion, it was decided that the Society would cooperate in the project.

A letter was read from the State Board of Medical Examiners, reporting that they had referred the matter of a lay individual in Sussex County practicing medicine without a license to the Illegal Practice Commission.

DR. J. G. COLEMAN was chosen unanimously by the Society as our nominee for the General Practitioner Award.

Regarding the question of doctor availability, it was decided that such difficulty does not arise in Sussex County because of the "on call" system adopted by the several hospitals in the County.

After considerable discussion, the Society voted to approve the establishment of a Baby Keep Well Station in the county and to notify Dr. Esty of the Sociey's decision.

There then followed a discussion on doctors being subpoenaed as civilian witnesses and the advisability of meeting with the legal profession so that unnecessary delays in testimony and duplication of the same could be avoided.

WARREN COUNTY

Joseph C. Humbert, M.D., Reporter

An explanation of the State Disability Benefit Plan featured the regular bimonthly meeting of the *Warren County Medical Society*. Opening the meeting at Warren Hospital on February 15, the president, DR. FRANK BARTOLINI, introduced MR. MILLARD E. CUSKADEN, Chief of the State Plan.

The members then discussed the threat to the private practice of medicine. Resolutions approving the A.M.A. educational fund assessment and making the contribution mandatory on the society's members were unanimously passed. DR. FRANK BARTOLINI and DR. JOSEPH C. HUMBERT were chosen as members of the Speakers Bureau and will attend the training and briefing session in Trenton on February 20.

Some physicians in the area are listing themselves in the Easton-Phillipsburg Telephone Directory under the heading of various specialties instead of as physicians. A resolution disapproving of this practice was passed, and the secretary ordered to notify Northampton (Pa.) County Medical Society of this society's action. The secretary was also instructed to send a copy of the resolution to the New York State Medical Society, calling its attention to a New York physician who was listing himself in the Directory as a plastic surgeon, and to inform the telephone company that two osteopaths were being listed as doctors of medicine.

The Hackettstown Red Cross Blood Bank Program is still having organizational difficulties. The Red Cross, which had previously asked the society to approve the program, is now demanding that the society take full responsibility.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

Mrs. Robert B. Walker

As we approach the close of our year, it is important that we pause to retrospect and to estimate the prospectives of the future. In the past, have we as members of the Auxiliary put forth the endeavor to understand the purpose and objectives of our organization and contributed our full share of support toward these accomplishments? Can we by our collective efforts in the future establish a stronger bond of service and understanding with our parent body—the Medical Society?

Dr. Edward L. Bortz in his report to the House of Delegates said, "The Auxiliary is now beginning its rightful role. It represents probably our most effective instrument in the field of public relations." Let us then by the very essence of our work in these crucial times strive to fulfill that rightful role. Believe in yourself; believe in humanity; believe in the success of your undertaking. Do not fear opposition. A certain amount of opposition is a great help to our efforts; kites rise against and not with the wind. Keep in touch with today and have vision for the morrow. Teach yourself to be practical and up-to-date—and sensible. You cannot fail!

STATE CONVENTION

TENTATIVE PROGRAM
Ambassador Hotel

TUESDAY, APRIL 26, 1949

10:00 a. m.—Registration — Luncheon Tickets — Lounge Floor

1:00 p. m.—Pre-Convention Board Meeting—Room 109, First Floor

3:30 p. m. to 4:30 p. m.—Tea — Informal get-together—Room 109, First Floor

6:30 p. m.—Fellowettes Dinner — By Invitation Only

WEDNESDAY, APRIL 27, 1949

9:30 a. m.—General Session—Surf Room—Lounge Floor

1:00 p. m.—Auxiliary Luncheon — Honoring Mrs. Robert B. Walker, President—22 Club, Ground Floor

7:30 p. m.—Banquet in honor of Dr. J. Howard Hornberger, President of The Medical Society of New Jersey—Renaissance Room, Lounge Floor

THURSDAY, APRIL 28, 1949

10:00 a. m.—Post Convention Board Meeting—Room 109, First Floor

ROOM RESERVATIONS

All Room Reservations must be sent to Mrs. Edith L. Madden, The Medical Society of New Jersey, 315 W. State St., Trenton 8, N. J.

AUXILIARY MEETINGS

ATLANTIC — The Nurses Scholarship Fund Dance, sponsored by the Auxiliary, was held on January 15, at the Hotel Traymore. Mrs. Clarence B. Whims was chairman of the very successful affair. Arts and Hobbies featured the regular monthly meeting which took place February 11, at the Hotel Traymore with Mrs. Harry Subin, president, presiding. Margaret Price Cornell, former student of the world-famous Fokine, spoke on the history of the ballet. Miss Cornell's talk was illustrated by an exhibition of the Swan Dance performed by her prima ballerina, Gloria Goodfriend. Miss Hazel Hartman, of the Hotel Traymore, discussed her hobby of collecting napkin rings—both old and new—from all over the world.

BERGEN—Mrs. Floyd Keir, president, presided over the regular meeting held on January 11, at Bergen Pines. The Constitution and By-Laws presented by Mrs. Eli Sheer were unanimously adopted. A nominating committee was appointed consisting of Mrs. Joseph B. Basralian, chairman; Mrs. Thomas De Cecio, Mrs. Edward Mancini, Mrs. C. Cullough Meyer, Mrs. Hyman Oren and Mrs. Nathan Nemiroff. Mrs. Edward Sexton reported that the

Rh Negative Blood Donors Club under the direction of Dr. Felix Vann meets every Tuesday morning at Bergen Pines to set up a master file of donors.

CAMDEN—A Membership Tea was given on February 1, and Mrs. Banks S. Baker, first vice-president, presided. Comments on a paper, "American Committee for Nursing Scholarship" were read by Mrs. Harvey Stover, chairman of the Nurse Recruitment Program in South Jersey. Mrs. Arthur G. Pratt introduced the two nurses to whom funds had been granted for post-graduate study. The nurses gave a brief outline of their course. Mrs. Reuben L. Sharp introduced the wives of the resident physicians of the Cooper and West Jersey Hospitals who were guests of the Auxiliary. New members were welcomed and introduced by Mrs. Raul R. Betancourt. The program chairman, Mrs Harold K. Eynon arranged for the excellent musical selections which followed the meeting. Mrs. Kenneth B. MacAlpine and her committee were in charge of the tea at which Mrs. E. Reed Hirst and Mrs. Joseph E. Roberts poured.

HUDSON—The Auxiliary met on February 7, at Murdoch Hall, Jersey City Medical Center. The meeting was called to order by the president, Mrs. William Gleeson, who gave a report on the recent State Meeting. Arrangements have been made for the card party to be held February 21, with Mrs. John Muccia in charge. Mrs. Andrew Ruoff, legislative chairman, urged the group to keep well informed on current legislation. Mrs. Fred Sachs, chairman of public relations, announced plans were completed for the Annual Open Health Meeting to be held in March. A motion was passed to donate $100 to the New Jersey Camp for the Blind Children. Guest speaker for the afternoon was Juan Metzger who gave an interesting talk on food problems in Europe. Tea was served by Mrs. Albert Lepis and her committee.

MERCER—The New Jersey State Hospital was the meeting place of the Auxiliary on February 21. Mrs. John F. Kustrup, president, presided. Mrs. Norman Nathanson, president-elect of the State Auxiliary was the guest of honor. A report on the Subscription Dance was given by Mrs. Andrew Conte, dance chairman. Mrs. Charles C. Cohan, chairman of the N. J. State Hospital Volunteer Corps reported about fifty aides have been assigned to the various departments. Mrs. George Corio, public relations chairman, announced April 13 for an "Open Meeting" and Tea. Following the business meeting, Mrs. Bernard Wayman, legislative chairman, led a discussion on pending legislation of interest to the Medical Society. The Auxiliary members were taken on a tour of the hospital.

UNION—A Program Luncheon on January 18, was presided over by Mrs. William Wuester, president, assisted by Mrs. Bertram Sauerbrun, program chairman. Guests and speakers at the luncheon were Mrs. Asher Yaguda, chairman of Public Relations, the Woman's Auxiliary to the American Medical Association and Mrs. Robert B. Walker, state president of the Woman's Auxiliary to The Medical Society of New Jersey. The theme of the program was "Our Role in Medical Public Relations". An open discussion followed the speakers' addresses. Plans were made to form study groups to enable the Auxiliary Members to be better informed on current medical legislation and matters pertinent to present day medical public relations.

Press and Publicity Chairmen,
Atlantic—Mrs. E. Harrison Nickman
Bergen—Mrs. Winston Johnson
Camden—Mrs. Robert S. Gamon
Hudson—Mrs. Morris Bresev
Mercer—Mrs. Joseph R. Burns
Union—Mrs. Alexander Breslow

NATIONAL CONVENTION

Haddon Hall will be the headquarters for the Annual Meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Atlantic City, June 6 to 10.

Requests for reservations should be sent at once to Dr. Robert A. Bradley, Chairman, Subcommittee on Hotels, 16 Central Pier, Atlantic City, N. J.

BOOK REVIEWS

Manual of Clinical Therapeutics. By Windsor C. Cutting, M.D. 2d ed. Pp. 712. Phi'adelphia, W. B. Saunders Company, 1948. ($5)

As a quick reference, this manual fills a gap in modern therapeutics. Diabetes mellitus, antihistamines, bacterial and viral infections, the use of antibiotics, vitamin deficiencies, endocrine diseases, the heart and circulatory systems, and obesity are thoroughly discussed. There are excellent diet lists, clinical and physiologic tables, lists of modern drugs, poisons and antidotes. The book may be highly recommended to the busy general practitioner as a welcome addition to his library.

LOUIS SIMONSON, M.D.

Book Reviews continued on following pages.

Social Medicine. Edited by Iago Galdston, M.D., Pp. 294. New York, 1949, Commonwealth Fund. ($2.75)

The hundredth anniversary of the New York Academy of Medicine was celebrated by a symposium on social medicine. Twenty-six persons contributed to the symposium and their collected papers constitute the fabric of this book. Social medicine is an integration of public health, social psychology, and mass medical economics. It is an effort to lift the doctor's field of vision from the sickbed to the total community. It opens with an analysis of "changing concepts of the relation of medicine to society," reviews the role of epidemiology and nutrition in public and personal health, gives a once-over-lightly to "social applications of psychiatry" and closes with a chapter entitled: "Social Medicine: The Appeal of the Common Man."

As with every anthology, the style is uneven. Some of the authors write fluently and readably, some falter, some are a bit on the turgid side. The doctor of medicine takes a lot of scolding. John Ryle reproves him for having lost his interest in etiology—by which he means "the influence of economic circumstances, domestic environment, occupation, nutrition and education". Dr. Edward Stieglitz feels that the practitioner is overworking the concept of specific causes of disease; ("bacteriology," he writes "has retarded medical thinking"). The physician is reprimanded for "neglect of constructive medicine for adults". Jonathan Meakins complains that we, as a profession, are "condoning overcrowding, promiscuity, malnutrition, bad clothing and other conditions which cause physical and spiritual disabilities". Even George Baehr finds it necessary to be defensive about his professional brethren: "because they are so pre-occupied with individuals, the medical profession can be excused if they do not see the woods for the trees".

It's a challenging and inspiring thought, this concern about the doctor's duty in getting better food, better housing, better clothing. Most of us would be proud to play a role in making these goals possible. Only if most of us threw ourselves into that good fight, who would be taking care of the patients?

Victor Huberman, M.D.

A.M.A. Interns' Manual. Edited by the Council on Pharmacy and Chemistry. Pp. 201. Philadelphia, W. B. Saunders Company, 1948. ($2.25)

This manual presents facts that every intern needs in a clear and concise manner. Hospitals would do well to supply this book to each intern as standard equipment. It is as essential as their uniforms. It includes a simple presentation of prescription writing. The chapter on nutrition gives the clearest discourse on the subject I have read anywhere.

Throughout the book there are tables and charts that interns and residents always need, such as drug dosages, normals for laboratory reports, accepted abbreviations for prescription writing, and values for calculating diets.

Irving Maisel, M.D.

The Healthy Hunzas, By J. I. Rodale. Pp. 263. Emmaus, Pa., Rodale Press, 1948. ($2.75)

Written with the noble thought of promoting conservation of natural resources, including health, this book of second hand information on a little known race of people of Northwest India might well be a story of a fantastic Shangri-La were it not actually rooted in the seeds of some truths. Although he has no firsthand information, the author brings together from well assembled sources a series of facts to prove his pet thesis on the basis of stories about these Hunzas. The burden of his tale is: "put back in the soil what came from the soil". He must be given credit for practicing what he preaches. Since the subject touches on human health, its presence in a medical library might be justified. It may be that lay opinions should be heard without scorn for what they are worth. This book is a conglomeration of occasionally interesting but often unrelated facts, poorly constructed in sequence, certainly questionable as to proof. For a story of oddities in ethnology, it is fascinating and as baffling in some details as the possible origins of the Basque tongues would be to the language detectives. In the great mass of bewildering, if somewhat questionable, facts there are gems worth pondering. For convincing physicians or farmers the book lacks cohesive argument, however, for either its value to health or farming methods, the reviewer is not a horticulturist of any experience, yet it would seem that the advantages of the methods of farming advocated actually come from the hard outdoor work entailed. Quotations from the testimony of chiropractors, and an entire chapter of letters or testimonials from people hardly in a position to judge scientific facts, leave the reader unconvinced.

Everett O. Bauman, M.D.

A History of the Heart and the Circulation. By Fredrick A. Willius, M.D., and Thomas J. Dry, M.S. Pp. 456; illustrated. Phila. W. B. Saunders, 1948. ($8.00)

In the last few years the medical profession has evinced a heart-warming interest in the historical and cultural side of medicine. This interest has been materially stimulated by many books which appeared recently. To mention but a few: *The Study of Medicine in the Middle Ages* by Riesman; *History of Medicine* by Castiglioni; Major's *Classic Descriptions of Disease; History of Cardiology* by Herrick; and *Cardiac Classics,* by Willius and Keyes.

The present volume may be considered as a second edition of the last, but it is certainly no improvement. The authors quote *Cardiac Classics* 158 times, thus pointing to the fact that all source material of any importance had to be found in the previous volume. Indeed, the current book may be regarded as a compendium of *Cardiac Classics,* hastily written, poorly collated, repetitious and redundant.

Aaron E. Parsonnet, M.D.

Language and Language Disturbances. Kurt Goldstein, M.D. Grune and Stratton, New York, 1948. Pp. 374.

When only twenty pages of a 374 page book are devoted to treatment, it may be assumed that the text will be of limited usefulness to clinicians. And in truth, Dr. Goldstein's monograph is devoted essentially to a conceptual understanding of language disturbance rather than to a clinical treatise on diagnosis and therapy. There is little reference to the semantic and emotional aspects of language, though there is full recognition of the fact that language disturbance is a disturbance of a total personality. Actually the book is concerned chiefly with the various aspects of aphasia. It reviews disturbance in inner speech, language reception, calculation, musical performance, reading and writing. The thesis is supported by a detailed analysis of twenty-five cases, which are interesting but of somewhat uncertain applicability because many of them were studied decades ago by technics which might now be considered obsolete, and because, for most of the patients, English was not a native tongue. The book will be useful to speech pathologists, psychologists and to those psychiatrists particularly interested in aphasia; it is hard reading for physicians outside this field.

ERNST HIRSCHOFF, M.D.

Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals. Medical Economics, Inc., Rutherford, N. J., 1949. Pp. 312. Gratis.

Few books will earn desk space as faithfully as this guide to pharmaceutical specialties. It opens with a manufacturers' index which lists drug companies in alphabetical order, furnishing addresses and even telephone numbers for the doctor who feels impelled to long-distance a call to a pharmaceutical house for an emergency delivery of a rare and potent drug. Next comes a section which alphabetically lists drugs, brand names, and company names. Thus if you want to prescribe benzedrine, or betolin or betolake, you will find it here, together with the name of the manufacturer. As any busy practitioner will know, this ready reference is often a life saver to the doctor, if not to the patient. The next section alphabetizes the drugs themselves, so that if you are hunting for a gastro-intestinal sedative, or for a radio-opaque medium, for a water soluble vitamin or for a topical antibacterial agent, you will find it neatly alphabetized in the yellow pages of this guide. Next comes a "therapeutic indications index". Here you can look alphabetically under such headings as "abdominal distention" or "breast engorgement" or "cellulitis" and find a list of suggested drugs together with the manufacturer and a page cross reference to each. This kind of arrangement is generally condemned by professors who consider it unscientific and too suggestive of a sort of push-button medical practice. It may be predicted, however, that some of the professors (if they engage in treatment at all) may sometimes furtively ruffle through these blue pages to pick up some suggestions.

After this comes an informational section into which are packed such useful data as blood groupings, dosages, antidotes, infant diets, height and weight tables, conversion factors, and the location of eye banks. The book closes with a section which lists for each pharmaceutical mentioned, the composition, actions, contra-indications, doses, and package information. This is the third consecutive annual edition, and it is a good thing too that the publishers rewrite it and re-issue it annually, since by the end of the year, it is likely to be a pretty well worn-out volume in the office of any busy practitioner.

HERBERT BOEHM, M.D.

General Endocrinology. By C. Donnell Turner, Ph.D. Pp 604, Philadelphia, W. B. Saunders Company, 1948. ($6.75)

This book does not attempt to be a guide to clinical endocrinology. It cannot be complete within the space it uses, but using the viewpoint of comparative physiology, it becomes a stepping stone to an understanding of endocrine problems. It is of prime importance to any student of a science based so largely on experimental study and biologic assays to know the basic data of animal endocrinology.

Comparative anatomy and physiology in both animal and plant kingdoms are described and remind the student that the basic concept of endocrine problems is one of general biology. The thyroid and parathyroid glands form the subject of successive chapters, which contain valuable information although relatively few clinical data. The pancreas and all the essential facts of its endocrine function are described in precise fashion.

In the chapter on gastro-intestinal principles, the anti-ulcer hormones are discussed. In this discussion Selye's General Adaptation Syndrome could have found a place.

Anatomy and physiology of the adrenals together with a reviewer of the autonomous nervous system are then treated. Medullary as well as cortical adrenal functions are described briefly and the basic biochemistry of the corticosteroids is given. The pathologic considerations are briefly summarized.

The chapter on biology of sex and reproduction contains the essential data and an excellent diagram of an ovary at its different stages. The author then discusses the embryology and physiology of the testis. Many clinical difficulties find their explanation in the complex structure and function of this organ. The physiology of the ovary with a description of estrus, menstrual cycle and ovulation follows. In the explanation of menstrual and ovulatory phenomena the recent concept of elaboration of a toxin as given by Smith and Smith is not mentioned. A review of the latest data concerning endocrine factors in pregnancy and lactation is presented.

The chapter on the pituitary is an excellent summary of the present knowledge of its physiology. As each chapter is followed by a detailed bibliography, the reader will have no difficulty in enlarging on any of the subjects discussed.

ALEXANDER KREYSSAR, M.D.

Cornell Conferences on Therapy. Harry Gold, M.D., Managing Editor. Volume III. Pp. 337. New York, The MacMillan Co., 1949. ($3.50)

A review of the treatment of miscellaneous clinical conditions is presented in this volume. The round-table type of presentation is eye-catching and absorbing, but the discussions are sketchy and incomplete. A good portion of the material discusses the personal views of one or more of the participating authors. The chapter on congestive heart failure, outlined by Dr. Gold, stresses the importance of salt restriction, mercurial diuretics, liberal fluids and daily weighing of patients. This treatment is effective in the seriously-ill cardiac patient as well as in the ambulatory patient with exertional dyspnea as the only complaint. It requires a minimum of nursing and medical care.

Other topics reviewed are the use of streptomycin, protein hydrolysates, British antilewisite and cathartics. The treatment of pneumonia, barbiturate poisoning, hepatic insufficiency, thrombophlebitis, alcoholism, and genitourinary infections is discussed at some length. For a quick round-up of these subjects, every physician will find this book of value.

David J. Lehman, Jr., M.D.

Your Baby. By Gladys Denny Shultz and Lee Forrest Hill, M.D. Doubleday and Company. Garden City, 1949. Pp. 278. ($3.50)

The father gets some attention in this king-sized profusely illustrated baby book. At last some one has written a book which tells the father what *he* ought to know and which gives him some sense of participation in the bewildering project of rearing a baby. The very first chapter is entitled "We are Pregnant" and very first illustration shows a father cradling the baby in a hairy arm.

In cheerful, easily read style, the authors take the couple through such problems as diet in pregnancy, the thumb-sucking baby, selecting an obstetrician ("does he belong to the county medical society?" is the italicized question), tricks of nursing, diapering, toys, bowel training, and technics of burping. The book is charmingly illustrated. The doctrines are sensible, accepted and practical. The authors are concrete and helpful but they preach no sermons. The general arrangement is chronological, by age brackets, so that all the information needed for one particular baby is arranged compactly in one section. There is a roomy record section at the end, providing space for entering the necessary vital statistics and great events in baby's life.

At the moment, my own daughter is still operating on a self-demand schedule, but the book's advice on routinization and schedule conformity is sound, and it's fun to read. The volume is chock full of practical pointers on everything from sibling rivalry to first aid to the injured. The book is well bound, the cover being gaily (and impartially) tinted in both pink and blue. While its dimensions (7½ x 11) make it hard to read in bed, it is a proud and useful item on any library table, and one that will be consulted frequently and reassuringly.

Adelaide H. Davidson.

Medullary Nailing of Kuntscher. By Lorenz Boehler, M.D. First English ed., rev. by the author; translated from the 11th German ed., by Hans Tretter. M.D. Baltimore, Williams & Wilkins, 1949. ($7)

This is a textbook of the medullary nailing of fractures, covering all aspects from rationale to indications and contra-indications, thence through necessary instruments and equipment to operative technic all directed to the surgeon who wishes practical guidance and reference material in this new field.

Professor Boehler is enthusiastic about the results in closed fresh femoral fractures in the middle third. He also states that in strictly selected transverse fractures of the middle third of the shaft of other long bones good results may be obtained. Other fractures may, in his opinion, be better managed by more orthodox methods.

In favorable cases, medullary nailing largely eliminates the dangers of long recumbency, the loss of joint motion, muscle power, bone strength and circulatory efficiency of the part intrinsic in long disuse. Hospitalization and the entire treatment period are shortened.

The author warns not to undertake the procedure lightly. Complications resulting from errors of indication or technic are demonstrated and discussed. Detailed guidance is presented for the use of the nail in all sites where it may be of service. Stress is on proper indication and timing of the procedure ("nailing is never an emergency"), adequate equipment, and x-ray control.

This book should be in the hands of every surgeon dealing with fractures, as it is the only authoritative presentation in English of an important new aid in accelerating the tempo of fracture treatment.

Bernard Chromow, M.D.

Diseases of the Ear, Nose and Throat. By William Wallace, M.D. Pp. 772. Appleton-Century-Crofts, Inc., New York, 1948. ($8.50)

This is an ideal book for undergraduates. The exposition of subject matter, the transition of topics, and the arrangement of chapters are elements which are handled with great success in this text, making the reading of it, even for the advanced student, an interesting and absorbing experience.

The chapter on chemotherapy is excellent and easily could be published as a monograph. The changes and discoveries which have been made in otolaryngology in the past decade are included. Several new chapters, essential to an understanding of modern otolaryngology have been added. These include headache and neuralgias, new operations, allergic and vasomotor disorders and present day theories in the physiology of hearing.

Dr. Morrison's work is highly recommended as a textbook for students. General practitioners will find it easy and pleasant reading. To specialists, it affords an opportunity to review at once the new developments in their field. The illustrations are remarkable for their easy comprehensibility.

Louise Fischer, M.D.

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **March, 1949** **No. 3**

THE decreasing incidence of tuberculosis in the United States has been accompanied by changes in the epidemiology of the disease which are of interest and concern to all physicians. Primary tuberculosis among adults, once relatively rare, is now increasing and in doing so presents new problems for clinicians and public health workers.

PRIMARY INFECTION AND PROGRESSIVE TUBERCULOSIS

In the pathogenesis of progressive tuberculosis, pulmonary or extrapulmonary, it has been a general assumption that there are mainly two separate danger periods. The first, at the time directly following primary infection; another, dependent on a secondary exogenous infection or an endogenous exacerbation of lesions formed during the primary infection and separated by a period of latency from the primary infection. Primary infection in early childhood exacts a certain toll of mortality from disseminated tuberculosis, miliary or otherwise, from meningitis and from direct extension from the primary complex. This is generally accepted and seems well substantiated by the early peak in tuberculosis mortality before the age of five. Whether this hazard from the primary infection exists only during childhood or continues throughout life is difficult to know.

The problem becomes more urgent, of course, with the decrease of childhood infection and the concurrent increase of primary infections in adults. Other questions are whether or not progressive pulmonary tuberculosis in adults is in a significant proportion of cases the direct consequence of primary infection, and, if so, whether or not primary progressive pulmonary tuberculosis in the adult can be differentiated clinically and roentgenologically from that disease which is caused by a secondary (endogenous or exogenous) infection in the presence of a healed primary complex.

In an impressive series of reports from the Scandinavian countries, the relation between primary infection and progressive pulmonary tuberculosis in adults has been studied. Complete unanimity of opinion does not exist, but most, if not all, contemporary Scandinavian authors now agree that:

(1) Primary infection occurs frequently after the age of 18 or 20.

(2) Primary infection in adults is much more frequently accompanied by clinical symptoms, such as grip-like symptoms, fever and malaise, than is usually recognized in this country.

(3) Primary infection in adults is frequently associated, particularly in young women, with erythema nodosum (in Sweden, erythema nodosum is reportable as tuberculosis), with exudative pleurisy and with parenchymal changes in the lung demonstrable by X-ray examination.

(4) A large proportion of all cases of "genuine" (reinfection type) tuberculosis is caused directly by primary infection.

(5) While primary infection can be diagnosed with certainty only by tuberculin conversion, erythema nodosum and certain roentgenological changes should strongly suggest the diagnosis.

Whether or not the Scandinavian observations are representative for conditions in the United States is not known because an insufficient number of studies concerned with this problem have been published here.

It is known that erythema nodosum in association with primary tuberculosis is rare in this country. The shift of tuberculin conversion to higher age groups is as well known here as in Scandinavia. For the rest, there is little evidence for or against the Scandinavian conclusions. According to a few reports, a diagnostic differentiation between primary and secondary tuberculosis is impossible

without tuberculin tests proving recent conversion. This should not imply an absence of differences. Competent observers state that essentially the same anatomical differences exist in adults between primary and post-primary tuberculosis as in children. Clinical symptoms and objective signs of disease seem to be observed, in the early period following conversion, more frequently in Scandinavia than in the United States. It is uncertain whether this difference is in facts or in interpretation.

Most mass surveys in the United States have been made without tuberculin tests, and few have repeatedly examined the same persons. Serial tuberculin tests and repeated filming are necessary for disclosing the relation between primary infection and progressive tuberculosis. It is hoped that the large study on nurses, now being carried on under the joint auspices of the National Tuberculosis Association and the U. S. Public Health Service, will provide material suitable for analysis from a pathogenetic point of view.

It should be obvious that pathogenetic knowledge is not of academic interest only—it is unavoidably the foundation for all anti-tuberculosis work and will determine the effectiveness of such work.

It is possible that what is true in Scandinavia is not true in the United States. *Tuberculosis changes with time and place.* Every country must investigate its local epidemiological conditions; none can accept, without proof, the findings in some other region.

BCG vaccination is the logical consequence of the epidemiological situation in Scandinavia. If it should prove to be true for the United States that a large proportion of progressive tuberculosis in adults develops independently of a second exogenous infection, our present strategy of anti-tuberculosis work would need fundamental reforms.

Primary Infection and Progressive Tuberculosis, Editorial, Max Pinner, M.D., The American Review of Tuberculosis, October, 1947.

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1. Mountain, G. E.: Bronchial Asthma, J. Iowa M. Soc. 35:324 (Aug.) 1945.

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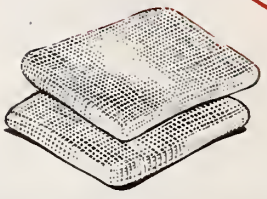
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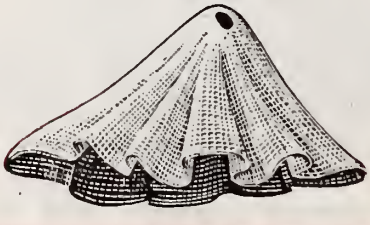
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1. Molasses	1.9 lbs.
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6. Linseed Meal	0.1 lb.
7. Distillers Grain	0.5 lb.
8. Brewers Grain	0.5 lb.
9. Bran	1.5 lbs.
10. Oats	2. lbs.
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12. Babassu Meal	1. lb.
13. Malt Sprout	1.5 lbs.
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WATER — 85 quarts

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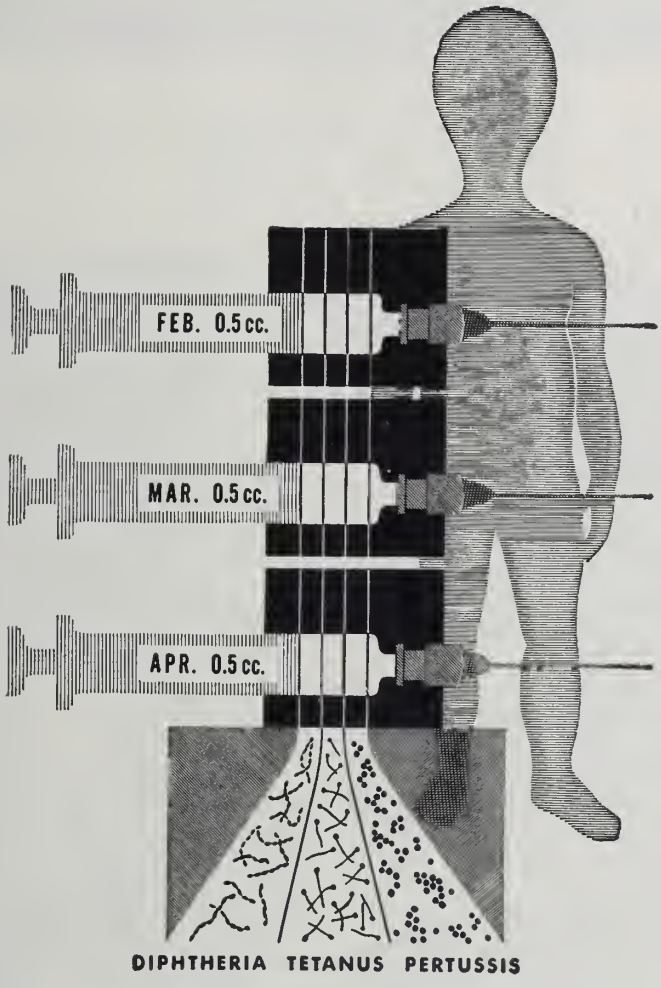
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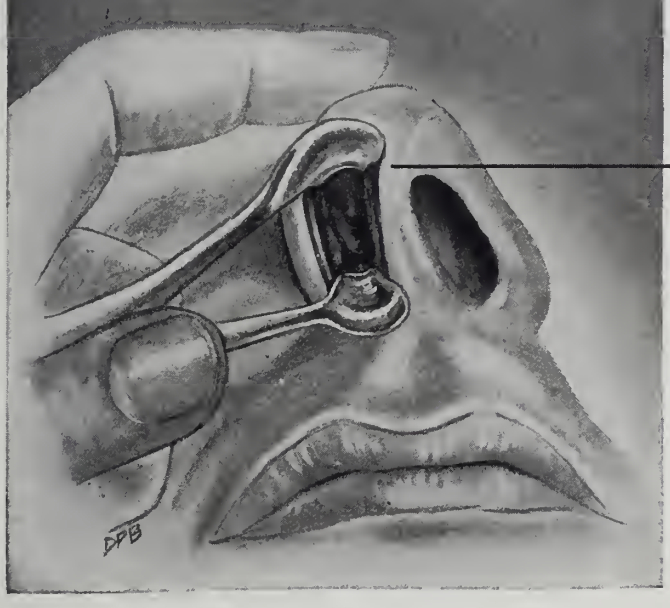
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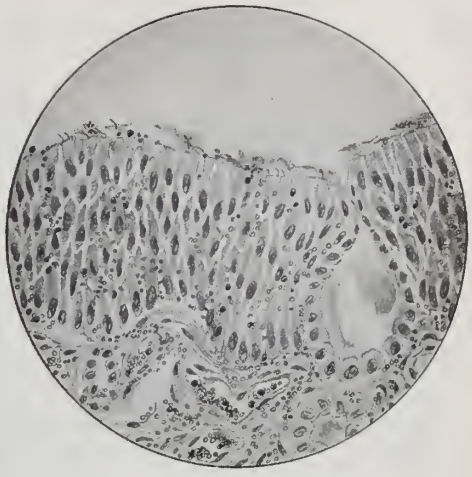
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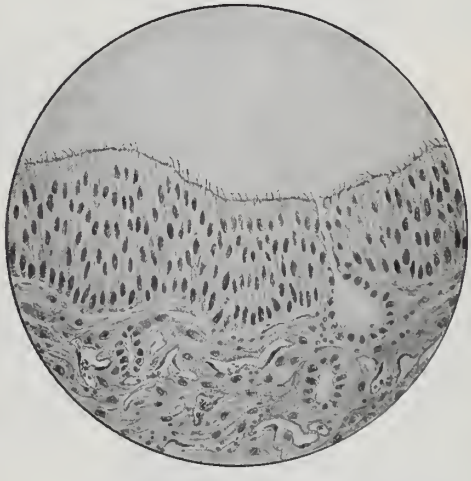
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**As printed in International Clinics, Vol. 1, page 199, March 1937*



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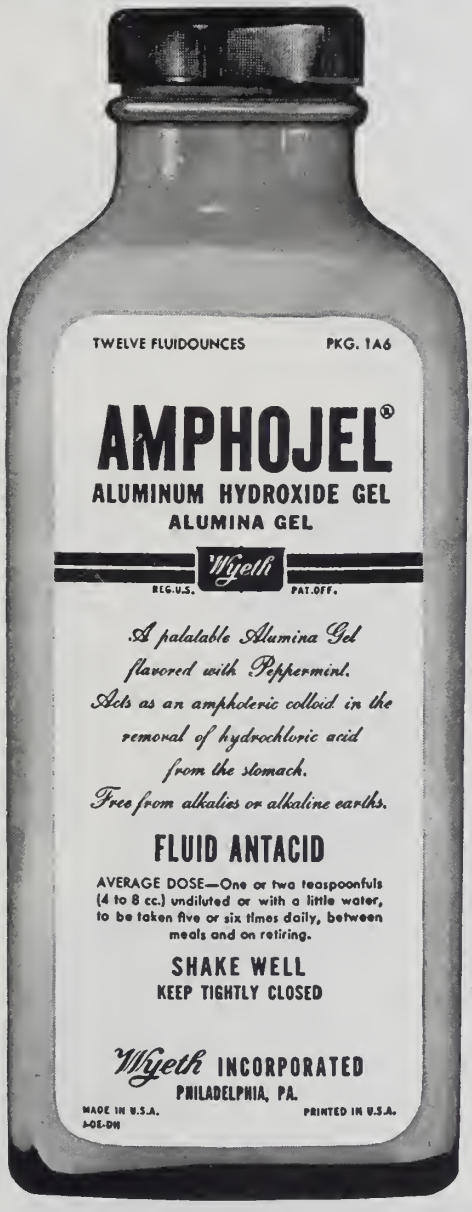
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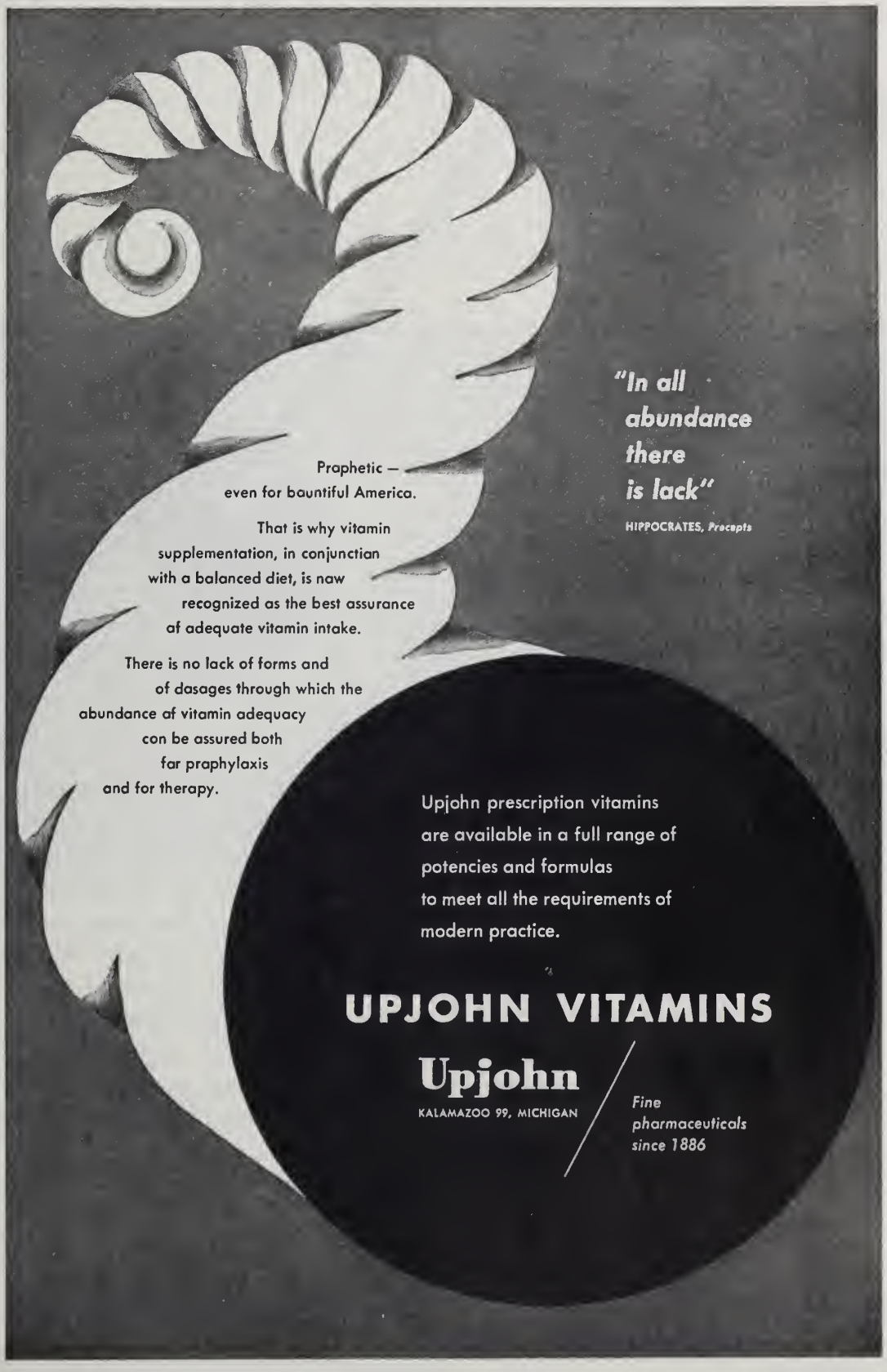
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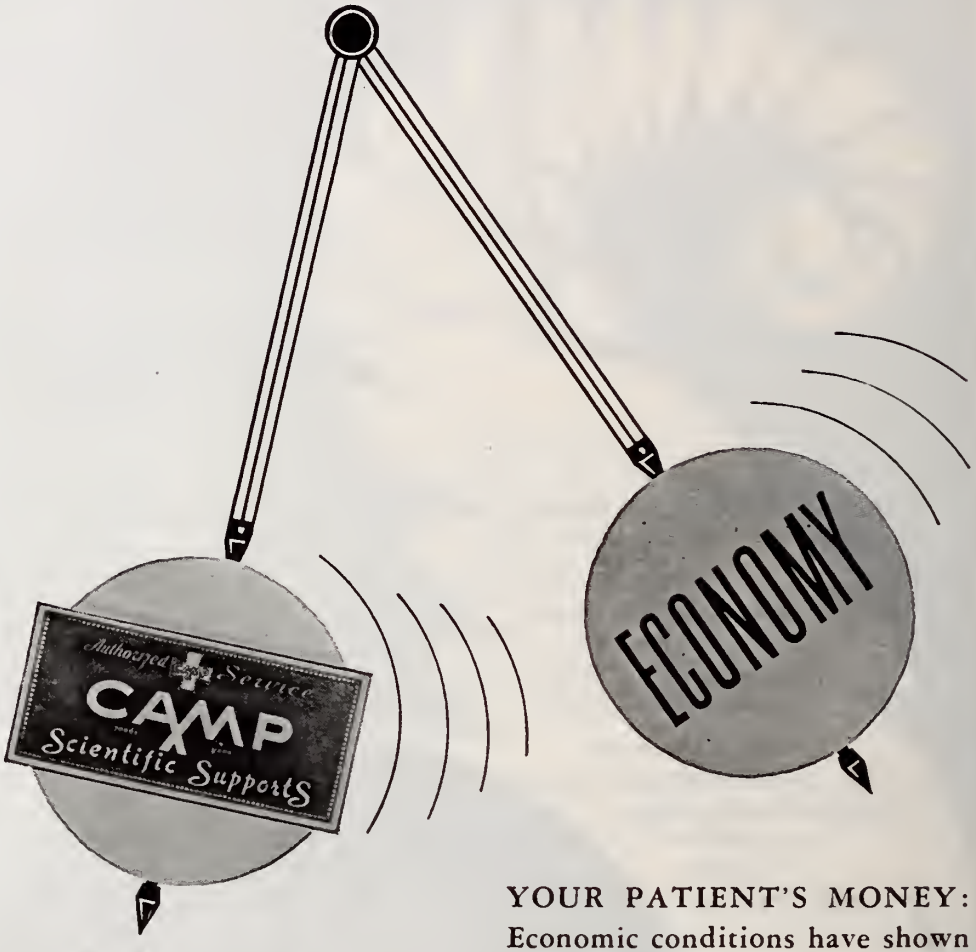
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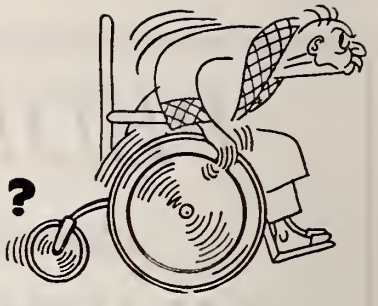
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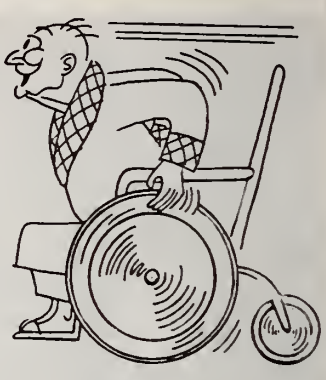


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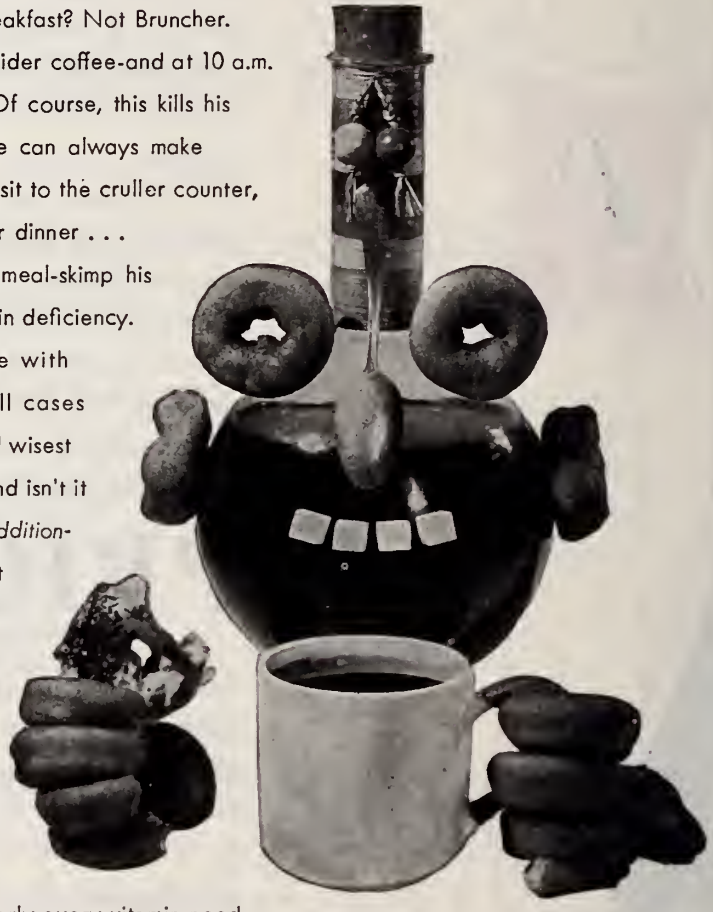
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Published Monthly Since September, 1904

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GETTING THE NOSE OFF THE GRINDSTONE

The program published in this issue gives many solemn and serious reasons for coming to the Annual Meeting during the week of April 25. This is the old sermon: the physician is a perpetual student, and the state medical society is his perpetual university. Hence the practitioner should attend every year in order to polish up his mental furniture. And of course, with the storm signals out for organized medicine, this year's convention will be doubly interesting on the organizational front. In a way, some of the reports to be presented will be like battle-field communiques.

But there is another reason for going to Atlantic City in the spring. It's a matter of going for fun—but there's nothing funny in the factors behind it. The medical profession seems to have taken an exceptional beating this past year in terms of death and invalidism in its own ranks—mostly cardiac disasters. The experts tell us that coronary morbidity is related directly to the pace of life. Few of us have the gumption—or the opportunity—to put the brakes on in the day-by-day routine of practice. So there is only one way to cut the cycle; to run away from it all. Not very courageous perhaps, but the fact remains that the doctor who runs away once in a while will live longer to work longer than the one who keeps his nose to the grindstone all year round. And if the decision is to flee into a week of relaxation, there is no better place for it than Atlantic City. They come here from all parts of the U. S. A. just for that purpose. We have the world's playground in our own back yard. Why not use it?

J. Howard Hornberger, M.D.,
President.

THE 183rd ANNUAL MEETING
of
THE MEDICAL SOCIETY OF NEW JERSEY
THE AMBASSADOR, ATLANTIC CITY
April 25, 26, 27 and 28, 1949

DAILY SCHEDULE

SUNDAY, APRIL 24, 1949

4:00 p. m.—Finance and Budget Committee
Room 104-05, First Floor

8:00 p. m.—Board of Trustees
Room 104-05, First Floor
Judicial Council
Room 109, First Floor

MONDAY, APRIL 25, 1949

10:00 a. m.—Board of Trustees, continued
Room 104-05, First Floor

11:00 a. m.—Luncheon, Section on Clinical Pathology
Room 109, First Floor

12:00 noon—Exhibits Open
Lounge Floor
Luncheon, Advisory Committee on Mental Hygiene
Room 106, First Floor
Luncheon, Section on Gastro-Enterology and Proctology
Room 108, First Floor

2:00 p. m.—Scientific Sections:
Neuropsychiatry
Surf Room, Lounge Floor
Clinical Pathology
Renaissance Room, Lounge Floor
Gastro-Enterology and Proctology
Club 22, Lobby Floor
Dermatology
Room 117-18, First Floor
Rheumatism
Room 121-22, First Floor
Anesthesiology
Room 125, First Floor

4:00 p. m.—New Jersey Rheumatism Association
Room 121-22, First Floor
Tour of Exhibits
Lounge Floor

5:30 p. m.—Exhibitors' Social (by invitation only)
Club 22, Lobby Floor

6:00 p. m.—Fellows' Dinner (by invitation only)
Room 109, First Floor

8:30 p. m.—Nominating Committee
Room 104-05, First Floor

TUESDAY, APRIL 26, 1949

9:00 a. m.—Tour of Exhibits
Lounge Floor

10:00 a. m.—House of Delegates
Renaissance Room, Lounge Floor

12:00 noon—Luncheon, Section on Pediatrics
Room 104-05, First Floor
Luncheon, Section on Surgery
Room 107, First Floor
Luncheon, New Jersey Medical Women's Association
Room 106, First Floor
Luncheon, Section on Venereal Disease Control
Room 108, First Floor

1:00 p. m.—Tour of Exhibits
Lounge Floor
Auxiliary, Executive Board
Room 109, First Floor

2:00 p. m.—Scientific Sections:
Obstetrics and Gynecology
Surf Room, Lounge Floor
Surgery
Renaissance Room, Lounge Floor
Pediatrics
Club 22, Lobby Floor
Heart Diseases
Room 117-18, First Floor
Allergy
Room 121-22, First Floor
Venereal Disease Control
Room 125, First Floor

3:30 p. m.—Auxiliary Tea
Room 108, First Floor

4:00 p. m.—Tour of Exhibits
Lounge Floor

6:30 p. m.—Auxiliary Fellowettes' Dinner
By invitation only

8:30 p. m.—Reference Committees
First Floor

WEDNESDAY, APRIL 27, 1949

9:00 a. m.—Tour of Exhibits
Lounge Floor

9:30 a. m.—Auxiliary Business Session
Surf Room, Lounge Floor

10:00 a. m.—General Session
Renaissance Room, Lounge Floor

12:00 noon—House of Delegates (Election)
Renaissance Room, Lounge Floor

1:00 p. m.—Tour of Exhibits
Lounge Floor
Auxiliary Luncheon
Club 22, Lobby Floor

2:00 p. m.—House of Delegates
Renaissance Room, Lounge Floor

3:00 p. m.—Auxiliary Business Session, continued
Surf Room, Lounge Floor

4:00 p. m.—Tour of Exhibits
Lounge Floor

6:30 p. m.—Social
Club 22, Lobby Floor

7:30 p. m.—Dinner Dance
Renaissance Room, Lounge Floor

THURSDAY, APRIL 28, 1949

9:00 a. m.—Tour of Exhibits
Lounge Floor

9:30 a. m.—Board of Trustees
Room 104-05, First Floor

10:00 a. m.—Auxiliary Executive Board
Room 109, First Floor
Scientific Sections:
Metabolism
Surf Room, Lounge Floor
Medicine
Renaissance Room, Lounge Floor
Orthopedics
Club 22, Lobby Floor
Radiology
Room 117-18, First Floor
Chest Diseases
Room 121-22, First Floor
Eye, Ear, Nose and Throat
Room 125, First Floor

12:00 noon—Exhibits Close
Lounge Floor

1:00 p. m.—Luncheon, Section on Radiology
Room 117-18, First Floor
Luncheon, Section on Orthopedics
Room 121-22, First Floor
Luncheon, N. J. Chapter, American College of Chest Physicians
Room 125, First Floor

GENERAL SESSION

Wednesday Morning, April 27, 1949

10:00 a. m.

The National Health Program
Hon. H. Alexander Smith, Senator from New Jersey, Washington, D. C.

11:00 a. m.

Britain's Medical Experiment: One Year Later
William A. Richardson, Editor, Medical Economics, Rutherford.

SCIENTIFIC SECTIONS

Monday Afternoon, April 25, 1949

2:00 p. m. - 4:00 p. m.

GASTRO-ENTEROLOGY AND PROCTOLOGY

THEODORE S. HEINEKEN, M.D., Chairman
SYDNEY ROSENTHAL, M.D., Secretary

22 Club, Lobby Floor

2:00 p. m.

Needle Biopsy of the Liver, A Critical Evaluation of 400 Cases
Carroll M. Leevy, M.D., Director of Clinical Investigation, Department of Medicine, Medical Center, Jersey City.
Co-Authors:
Thomas G. White, M.D., Chief of Medicine
Norval F. Kemp, M.D., Medical Resident
Angelo M. Gnassi, M.D., Pathologist
Preston Price, M.D., Pathologist
Medical Center, Jersey City.
Discussors: Louis A. Brodkin, M.D., Newark
Robert S. Gamon, M.D., Camden

2:30 p. m.

Business Session

2:45 p. m.

The Roentgen Diagnosis of Chronic Inflammatory Diseases and Tumors of the Small Intestine with Particular Reference to Regional Enteritis, Tuberculosis, Carcinoma and Carcinoid
Barton R. Young, M.D., Associate Professor of Radiology, Temple University, Director, Department of Radiology, Germantown Hospital, Philadelphia.
Discussors: Louis L. Klostermyer, M.D., Montclair
Louis L. Perkel, M.D., Jersey City

3:25 p. m.

Diagnosis and Treatment of Lesions of the Rectum and Colon
Frank S. Forte, M.D., Attending Proctologist, St. Michael's Hospital, Newark.
Co-Author: Salvatore J. Rose, M.D., Pathologist, St. Michael's Hospital, Newark
Discussors: Johannes F. Pessel, M.D., Trenton
William A. Scheffler, M.D., Camden

CLINICAL PATHOLOGY

FRANK W. KONZELMANN, M.D., Chairman
WILLIAM W. HERSOHN, M.D., Secretary

Renaissance Room, Lounge Floor

2:00 p. m.

The Coagulation Mechanism with Specific Reference to the Interpretation of Prothrombin Time Values and a Consideration of the Prothrombin Consumption Time
Armand J. Quick, M.D., Professor of Biochemistry, Marquette University School of Medicine, Milwaukee.
Discussor: John T. Bauer, M.D., Mt. Holly

2:55 p. m.

Evaluation of Cytologic Diagnosis of Cancer
Asher Yaguda, M.D., Clinical Pathologist, Newark.
Discussor: Salvatore J. Rose, M.D., Orange

3:20 p. m.

Business Session

3:30 p. m.

Melanoma Studies
Samuel A. Goldberg, M.D., Director of Laboratories, Presbyterian Hospital, Newark.
Discussor: Arturo R. Casilli, M.D., Elizabeth

NEUROPSYCHIATRY

Harrison F. English, M.D., Chairman
Lewis H. Loeser, M.D., Secretary

Surf Room, Lounge Floor

2:00 p. m.

Psychiatry in Relation to Obstetrics

Lloyd J. Thompson, M.D., Professor of Neuropsychiatry, Bowman Gray School of Medicine, Winston-Salem, N. C.

Discussor: Harold S. Magee, M.D., Trenton

2:55 p. m.

Business Session

3:10 p. m.

Brain Tumors in Children

Samuel A. Sandler, M.D., Attending Neuropsychiatrist, Christ Hospital, Jersey City.

Discussor: William Ehrlich, M.D., Newark

3:35 p. m.

Carbohydrate Metabolism and Cerebral Dysrhythmia, A Clinical Syndrome

Lewis H. Loeser, M.D., Consultant in Neuropsychiatry, Presbyterian Hospital, Newark.

Ira S. Ross, M.D., Instructor in Neurology, New York University College of Medicine, New York.

Discussor: Benjamin I. Saslow, M.D., Newark

RHEUMATISM

Peter J. Warter, M.D., Chairman
Alfred D. Dennison, Jr., M.D., Secretary

Room 121-22, First Floor

2:00 p. m.

The Cardiologic Aspects of Certain Rheumatic Diseases

Alfred D. Dennison, Jr., M.D., Cardiologist, Orange Memorial Hospital, Orange.

Discussor: Henry L. Drezner, M.D., Trenton

2:30 p. m.

Business Session

2:40 p. m.

Non-Surgical Treatment of Rheumatoid Arthritis

Daniel E. Kavanaugh, M.D., Orthopedist, St. Barnabas Hospital, Newark.

Discussor: Stella S. Bradford, M.D., Montclair

3:10 p. m.

The Development of the Campaign Against Rheumatic Diseases Abroad and in This Country.

Currier McEwen, M.D., Dean, New York University—Bellevue Medical Center, New York.

Discussor: Peter J. Warter, M.D., Trenton

DERMATOLOGY

Louis J. B. LeBel, M.D., Chairman
Jacob M. Schildkraut, M.D., Secretary

Room 117-18, First Floor

2:00 p. m.

Rare Variants of Lupus Erythematosus

Paul E. Bechet, M.D., Elizabeth, Consulting Dermatologist and Syphilologist, New York Skin and Cancer Unit, New York Post-Graduate Hospital, New York.

Discussor: Bart M. James, M.D., Newark

2:30 p. m.

Business Session

2:45 p. m.

Leukocyte and Differential Blood Counts as a Diagnostic Aid in Some Common Dermatological Problems

Cedric C. Carpenter, M.D., Summit, Dermatologist, Morristown Memorial Hospital, Overlook Hospital, Summit Medical Group.

Discussor: Morris H. Saffron, M.D., Passaic

3:20 p. m.

Psoriasis

Henry B. Decker, M.D., Attending Dermatologist, Cooper Hospital, Camden.

Discussor: Everett V. Dulin, M.D., East Orange

ANESTHESIOLOGY

Leo J. Fitzpatrick, M.D., Chairman
Edward T. Lawless, M.D., Secretary

Room 125, First Floor

2:00 p. m.

Pre-Anesthetic Preparation in Children

Lester C. Mark, M.D., Research Fellow, Department of Anesthesia, New York University College of Medicine and the Research Service, Third New York University Medical Division, Goldwater Memorial Hospital, New York.

Discussors: Robert E. Jennings, M.D., East Orange

Herman Roseman, M.D., Glen Ridge

2:50 p. m.

Business Session

3:00 p. m.

Regional Anesthesia for Upper Abdominal Surgery

Norman B. Kornfield, M.D., Attending Anesthesiologist, Medical Center, Jersey City.

Discussors: William J. Gleeson, M.D., Jersey City
Earl J. Halligan, M.D., Jersey City

Tuesday Afternoon, April 26, 1949

2:00 p. m. - 4:00 p. m.

SURGERY

SAMUEL J. LLOYD, M.D., Chairman
VICTOR B. SEIDLER, M.D., Secretary

Renaissance Room, Lounge Floor

2:00 p. m.

Some of the Newer Developments in the Management of Thyroid Disease

Frank H. Lahey, M.D., Surgeon, Lahey Clinic, Boston.

Discussors: V. Earl Johnson, M.D., Atlantic City
Eugene V. Parsonnet, M.D., Newark

2:55 p. m.

Business Session

3:10 p. m.

Maintenance of the Ambulatory State in Surgical Patients

Edward P. Whelan, M.D., Director of Surgery, St. Mary's Hospital, Passaic.

Discussors: David B. Ackley, M.D., Trenton
Paul M. Mecray, Jr., M.D., Camden

3:35 p. m.

Heparin and Dicumarol, Systemically, in Post-Operative Adhesions

Maurice M. Davidson, M.D., Attending Surgeon, Doctor's Hospital, Newark.

Discussors: Irving E. Fink, M.D., Newark
Watson B. Morris, M.D., Springfield

OBSTETRICS AND GYNECOLOGY

JOSEPH P. DONNELLY, M.D., Chairman
HAMMELL P. SHIPPS, M.D., Secretary

Surf Room, Lounge Floor

SYMPOSIUM ON INFANTILE MORTALITY

2:00 p. m.

The Prevention of Infantile Mortality

Andrew A. Marchetti, M.D., Professor of Obstetrics and Gynecology, Georgetown University, Washington.

Edward B. Tuohy, M.D., Professor of Anesthesiology, Georgetown University, Washington.

2:50 p. m.

Business Session

3:00 p. m.

Physiological Adaptations of the Newborn

Edward P. Duffy, Jr., M.D., Attending Pediatrician, St. Barnabas Hospital, Newark.

3:30 p. m.

General Discussion

PEDIATRICS

ISRAEL J. WOLF, M.D., Chairman
NORMAN T. CRANE, M.D., Secretary

22 Club, Lobby Floor

2:00 p. m.

Use of Fluoroscopy in Pediatric Diagnosis

Benjamin Copleman, M.D., Attending Radiologist, Perth Amboy General Hospital, Perth Amboy.

Discussor: John F. Waldron, M.D., South Orange

2:30 p. m.

Business Session

2:45 p. m.

Symposium on BCG Vaccination for the Control of Tuberculosis

Joseph D. Aronson, M.D., Associate Professor of Bacteriology, The Henry Phipps Institute, University of Pennsylvania, Philadelphia.

Edwin R. Levine, M.D., Director of Chest Service, Michael Reese Hospital, Chicago.

Discussor: Daniel Bergsma, M.D., Trenton

General Discussion

HEART DISEASES

THOMAS J. WHITE, M.D., Chairman
NORMAN REITMAN, M.D., Secretary

Room 117-18, First Floor

2:00 p. m.

Selected Features in the Electrocardiographic Diagnosis of Myocardial Infarction

Hugo Roesler, M.D., Cardiologist, Department of Medicine, Temple University School of Medicine and Hospital, Philadelphia.

Discussors: Harvey M. Ewing, M.D., Montclair
Levi M. Walker, M.D., Atlantic City

2:55 p. m.

Business Session

3:10 p. m.

The Present Status of Myocarditis

Louis F. Albright, M.D., Director of Medicine, Fitkin Memorial Hospital, Neptune.

Discussor: William A. Antopol, M.D., Newark

3:35 p. m.

Evaluation of Newer Therapeutic Agents in Treatment of Peripheral Vascular Diseases

Nathan Frank, M.D., Attending Physician and Chief, Peripheral Vascular Disease Clinic, Medical Center, Jersey City.

Discussor: Isabel M. London, M.D., Highland Park

ALLERGY

Nathan Schaffer, M.D., Chairman
Edward E. Seidmon, M.D., Secretary

Room 121-22, First Floor

2:00 p. m.

Immunologic Aspects of Antihistaminic Drugs

R. L. Mayer, M.D., Research Department, Division of Microbiology, Ciba Pharmaceutical Products, Inc., Summit.

Discussor: Nathan Swern, M.D., Trenton

2:30 p. m.

Some Theoretical Aspects of Allergy

Philip Levine, M.D., Director, Biological Division, Ortho Research Foundation, Raritan.

2:55 p. m.

Business Session

3:05 p. m.

Bronchial Asthma

Charles Hyman, M.D., Chief of Allergy, Atlantic City Hospital, Atlantic City.

Discussor: Lewis W. Brown, M.D., Newark

3:30 p. m.

Pathogenesis of Atopic Eczema

William J. Sweeley, M.D., Attending Dermatologist, Regional Office, Veterans Administration, Newark.

Discussor: William B. Nevius, M.D., East Orange

VENEREAL DISEASE CONTROL

Robert L. McKiernan, M.D., Chairman
Isidore Pincus, M.D., Secretary

Room 125, First Floor

2:00 p. m.

Control of the Venereal Diseases

N. A. Nelson, M.D., Director, Bureau of Venereal Diseases, City Health Department, Baltimore.

2:55 p. m.

Business Session

3:05 p. m.

Clinical Results of the Use of Penicillin in the Treatment of Syphilis

Bruce Webster, M.D., Associate Professor of Clinical Medicine, Cornell University Medical College, New York.

Thursday Morning, April 28, 1949

10:00 a. m. - 12:00 noon

ORTHOPEDICS

John J. Flanagan, M.D., Chairman
Raphael R. Goldenberg, M.D., Secretary

22 Club, Lobby Floor

SYMPOSIUM ON DERANGEMENTS OF THE HIP JOINT

10:00 a. m.

Derangements of the Hip in Infancy and Childhood

Harold T. Hansen, M.D., Attending Orthopedist, New Jersey Orthopaedic Hospital, Orange.

Discussor: Abraham M. Rechtman, M.D., Philadelphia

10:20 a. m.

Traumatic Derangements of the Hip

Frederick G. Dilger, M.D., Chief, Orthopedic Surgery, Holy Name Hospital, Teaneck.

Discussor: Toufick Nicola, M.D., Montclair

10:40 a. m.

Arthritic Derangements of the Hip

Bernard M. Halbstein, M.D., Attending Orthopedic Surgeon, Monmouth Memorial Hospital, Long Branch.

Discussor: Elmer P. Weigel, M.D., Plainfield

11:00 a. m.

Business Session

11:10 a. m.

General Discussion

RADIOLOGY

William H. Seward, M.D., Chairman
Raphael Pomeranz, M.D., Secretary

Room 117-18, First Floor

10:00 a. m.

Carcinoma of the Cervix

George Koeck, M.D., Radiation Therapist, St. Michael's Hospital, Newark.

Discussor: Alan O. Godfrey, M.D., Newark

10:30 a. m.

Business Session

10:40 a. m.

The Significance of Cartilage in Abnormal Location

Bradley L. Coley, M.D., Attending Surgeon, Memorial Hospital, New York.

Co-Author: Norman L. Higinbotham, M.D., Attending Surgeon, Memorial Hospital, New York.

11:15 a. m.

Arthrography of the Knee

Vincent M. Whelan, M.D., Attending Roentgenologist, Monmouth Memorial Hospital, Long Branch.

Discussor: Bernard M. Halbstein, M.D., Long Branch

MEDICINE

JOHN H. ROWLAND, M.D., Chairman
JEROME G. KAUFMAN, M.D., Secretary

Renaissance Room, Lounge Floor

10:00 a. m.

PANEL DISCUSSION

Treatment of Cardiovascular Disease

Irving Graef, M.D., Moderator, Assistant Professor of Medicine, New York University Post-Graduate Medical School, New York.

Panel: Jerome G. Kaufman, M.D., Newark
Isabel M. London, M.D., Highland Park
Patrick H. Corrigan, M.D., Trenton
William Stein, M.D., New Brunswick
J. James Smith, M.D., Elizabeth

NOTE: Members who cannot come to the convention may mail in questions to the Chairman. As many as possible will be answered. Questions and answers will be published later.

11:50 a. m.

Business Session

CHEST DISEASES

JOSEPH A. SMITH, M.D., Chairman
JUAN R. HERRADORA, M.D., Secretary

Room 121-22, First Floor

10:00 a. m.

Experience with Para Amino Salicylic Acid in the Treatment of Tuberculosis

Benjamin P. Potter, M.D., Chief, First Division, B. S. Pollak Hospital for Chest Diseases, Jersey City.

Discussor: Emanuel Klosk, M.D., Newark

10:25 a. m.

Treatment of Unexpandable Lung

Paul Geary, M.D., Thoracic Surgeon, Bonnie Burn Sanatorium, Scotch Plains.

Discussor: Philip J. Kunderman, M.D., New Brunswick

10:50 a. m.

Business Session

11:00 a. m.

Cor Pulmonale, Its Relationship to Pulmonary Disease, Cause and Effect

Paul K. Bornstein, M.D., Attending Physician, Fitkin Memorial Hospital, Neptune.

Discussor: Irving L. Applebaum, M.D., Newark

11:25 a. m.

The Second Most Important Silent Lesion

Richard H. Overhold, M.D., Clinical Professor of Surgery, Tufts College Medical School, Brookline, Mass.

Discussor: George N. J. Sommer, Jr., M.D., Trenton

METABOLISM

LEONARD D. WILLIAMS, M.D., Chairman
EVERETT O. BAUMAN, M.D., Secretary

Surf Room, Lounge Floor

10:00 a. m.

The Patient With Diabetes Mellitus

I. Arthur Mirsky, M.D., Director, The May Institute for Medical Research, Cincinnati.

Discussor: Elmer L. Sevringhaus, M.D., Nutley

10:40 a. m.

Business Session

10:50 a. m.

The Preoperative and Postoperative Management of Diabetic Patients

George Ginsberg, M.D., Attending Physician, St. Mary's Hospital, Hoboken.

Discussor: William H. Stoner, M.D., Bloomfield

11:25 a. m.

Important Diagnostic Errors in Diabetes

Benjamin I. Saslow, M.D., Attending Metabolist, Presbyterian Hospital, Newark.

Discussor: William E. Ehrlich, M.D., Newark

EYE, EAR, NOSE AND THROAT

Z. LAWRENCE GRIESEMER, M.D., Chairman
CHARLES W. BARKHORN, M.D., Secretary

Room 125, First Floor

10:00 a. m.

Surgery of the Extraocular Muscles

Glen G. Gibson, M.D., Professor of Ophthalmology, Temple University School of Medicine, Philadelphia.

Discussors: William H. Hahn, M.D., Newark
Ned Shaw, M.D., Camden

10:55 a. m.

Business Session

11:05 a. m.

Neuro-otology, Including Aural Microphonics, Auditory Localization, Vestibular Tonus and Functional Pathology of the Auditory and Vestibular Apparatus

Richard D. Swain, M.D., Medical Director, Eye and Ear Infirmary, Newark.

Discussors: Warren E. Crane, M.D., Trenton
Raymond E. Wolf, M.D., Newark

HOUSE OF DELEGATES

Presiding Officer, J HOWARD HORNBERGER, M.D., President, Roebling
Secretary, EARL LEROY WOOD, M.D., Newark

The Committee on Credentials will meet at the Registration Desk each morning of the meeting

Renaissance Room, Lounge Floor

First Session: 10:00 a. m., Tuesday, April 26, 1949

Order of Business

a. Call to Order
b. Organization of House of Delegates
c. Minutes of 1948 Meeting
d. Introduction of Delegates from Other States
e. Annual and Supplemental Reports
f. Award to Outstanding General Practitioner
g. Announcements

Second Session: 12:00 noon, Wednesday, April 27, 1949

Order of Business

a. Report of Nominating Committee
b. Election

Third Session: 2:00 p. m., Wednesday, April 27, 1949

Order of Business

a. Reports of Reference Committees
b. Unfinished Business
c. Installation of Incoming President
d. Adjournment

REFERENCE COMMITTEES

Tuesday Evening, April 26, 1949, 8:30 P. M.
First Floor

Reference Committee "A", to consider reports of:
The President
The Board of Trustees
The Secretary
The Judicial Council
The Executive Officer

Reference Committee "B", to consider reports of:
The Treasurer
The Finance and Budget Committee
The Publication Committee

Reference Committee "C", to consider reports of:
The Medical Service Administration
The Medical-Surgical Plan
The Emergency Medical Services Committee
The Veterans Liaison Committee
The Military Service Committee

Reference Committee "D", to consider reports of:
The Medical Education Committee
The Scientific Work Committee
The Medical Defense and Insurance Committee
The Advisory Committee to the Woman's Auxiliary
The State Board of Medical Examiners
The New Jersey Health Congress

Reference Committee "E", to consider reports of:
The Welfare Committee
The Subcommittees of the Welfare Committee
The Advisory Committees to the Subcommittees of the Welfare Committee

Reference Committee on Constitution and By-Laws

Reference Committee on Miscellaneous Business, to consider also reports of:
The Annual Meeting Committee
The Subcommittee on Scientific Program
The Subcommittee on Scientific Exhibits
The Place and Dates for the 1950 Meeting

Reference Committee on Resolutions and Memorials, to consider also reports of:
The Committee on Honorary Membership
Nominations for Emeritus Membership

Reference Committee on Credentials
Meets at Registration Desk each morning of the meeting.

DINNER DANCE

in honor of PRESIDENT AND MRS. J. HOWARD HORNBERGER

Wednesday, April 27, 1949
7:30 p. m.
Renaissance Room, Lounge Floor

Toastmaster: Dr. Joseph M. Kuder
Welcome: Mrs. Robert B. Walker, President, Woman's Auxillary
Dr. J. Howard Hornberger, President
Introductions: Mrs. Norman Nathanson, President-Elect, Woman's Auxiliary
Dr. James F. Norton, President-Elect

Presentation of Fellow's Key:
To: Dr. J. Howard Hornberger, President
By: Dr. Royal A. Schaaf, Immediate Past-President
Music: Joseph Stern's Orchestra
Entertainment

SPECIAL EVENTS

MONDAY, APRIL 25, 1949

11:00 a. m.—Luncheon, Section on Clinical Pathology
Room 109, First Floor

12:00 noon—Luncheon, Advisory Committee on Mental Hygiene
Room 106, First Floor

Luncheon, Section on Gastro-Enterology and Proctology
Room 108, First Floor

4:00 p. m.—New Jersey Rheumatism Association
Room 121-22, First Floor

5:30 p. m.—Exhibitors' Social (by invitation only)
Club 22, Lobby Floor

6:00 p. m.—Fellows' Dinner (by invitation only)
Room 109, First Floor

TUESDAY, APRIL 26, 1949

12:00 noon—Luncheon, Section on Pediatrics
Room 104-05, First Floor

Luncheon, Section on Surgery
Room 107, First Floor

Luncheon, New Jersey Medical Women's Association
Room 106, First Floor

Luncheon, Section on Venereal Disease Control
Room 108, First Floor

3:30 p. m.—Auxiliary Tea
Room 108, First Floor
All physicians' wives cordially invited

6:30 p. m.—Auxiliary Fellowettes' Dinner (by invitation only)

WEDNESDAY, APRIL 27, 1949

1:00 p. m.—Auxiliary Luncheon
Club 22, Lobby Floor

6:30 p. m.—Social
Club 22, Lobby Floor

7:30 p. m.—Dinner Dance
Renaissance Room, Lounge Floor

THURSDAY, APRIL 28, 1949

1:00 p. m.—Luncheon, Section on Radiology
Room 117-18, First Floor

Luncheon, Section on Orthopedics
Room 121-22, First Floor

Luncheon, N. J. Chapter, American College of Chest Physicians
Room 125, First Floor

MOTION PICTURE THEATRE

Courtesy of JOSEPH P. HACKEL

MEDICAL FILM GUILD, NEW YORK, N. Y.

Lounge Floor

Monday Through Thursday, April 25-28, 1949

MONDAY, APRIL 25

10:00-10:30—*Cancer—The Problem of Early Diagnosis*
New Jersey Department of Health.

10:35-10:50—*Non-Operative Treatment of Paranasal Sinusitis*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

10:55-11:43—*Hypothyroidism — Etiology — Diagnosis — Treatment*
J. Lerman, M.D., Thyroid Clinic, Department of Medicine, Massachusetts General Hospital.

11:48-12:30—*Cervicitis — Etiology — Diagnosis — Treatment*
Bela C. Balas, M.D., Herbert Schmitz, M.D., Department of Gynecology, Loyola University Medical School.

12:30- 2:00—INTERMISSION

2:00- 2:22—*Chronic Purulent Otitis Media*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

2:27- 3:09—*Peptic Ulcer*
Everett D. Kiefer, M.D., Department of Gastroenterology, Lahey Clinic.

3:14- 4:02—*Hypothyroidism — Etiology — Diagnosis — Treatment*
J. Lerman, M.D., Thyroid Clinic, Department of Medicine, Massachusetts General Hospital.

4:07- 4:22—*Non-Operative Treatment of Paranasal Sinusitis*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

4:27- 5:15—*Allergy — Immunology — Diagnosis — Treatment*
Leo Criep, M.D., Department of Immunology and Medicine, University of Pittsburgh.
Requests

TUESDAY, APRIL 26

10:00-10:50—*Cervicitis — Etiology — Diagnosis — Treatment*
Bela C. Balas, M.D., Herbert Schmitz, M.D., Department of Gynecology, Loyola University Medical School.

10:55-11:17—*Chronic Purulent Otitis Media*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

11:22-12:04—*Peptic Ulcer*
Everett D. Kiefer, M.D., Department of Gastroenterology, Lahey Clinic.

12:09-12:57—*Hypothyroidism — Etiology — Diagnosis — Treatment*
J. Lerman, M.D., Thyroid Clinic, Department of Medicine, Massachusetts General Hospital.

1:00- 2:00—INTERMISSION

2:00- 2:15—*Non-Operative Treatment of Paranasal Sinusitis*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

2:20- 2:57—*Pre-Cancer Diagnosis of the Cervix by Cytology*
New Jersey State Department of Health.

3:02- 3:50—*Hypothyroidism — Etiology — Diagnosis — Treatment*
J. Lerman, M.D., Thyroid Clinic, Department of Medicine, Massachusetts General Hospital.

3:55- 4:43—*Allergy — Immunology — Diagnosis — Treatment*
Leo Criep, M.D., Department of Immunology and Medicine, University of Pittsburgh.

4:48- 5:03—*Non-Operative Treatment of Paranasal Sinusitis*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

Requests

WEDNESDAY, APRIL 27

10:00-10:48—*Hypothyroidism — Etiology — Diagnosis — Treatment*
J. Lerman, M.D., Thyroid Clinic, Department of Medicine, Massachusetts General Hospital.

10:53-11:08—*Non-Operative Treatment of Paranasal Sinusitis*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

11:13-12:01—*Allergy — Immunology — Diagnosis — Treatment*
Leo Criep, M.D., Department of Immunology and Medicine, University of Pittsburgh.

12:06-12:36—*Cancer—The Problem of Early Diagnosis*
New Jersey State Department of Health.

12:36- 2:00—INTERMISSION

2:00- 2:22—*Chronic Purulent Otitis Media*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

2:27- 2:42—*Non-Operative Treatment of Paranasal Sinusitis*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

2:47- 3:29—*Peptic Ulcer*
Everett D. Kiefer, M.D., Department of Gastroenterology, Lahey Clinic.

3:34- 4:24—*Cervicitis — Etiology — Diagnosis — Treatment*
Bela C. Balas, M.D., Herbert Schmitz, M.D., Department of Gynecology, Loyola University Medical School.

4:29- 5:17—*Hypothyroidism — Etiology — Diagnosis — Treatment*
J. Lerman, M.D., Thyroid Clinic, Department of Medicine, Massachusetts General Hospital.

Requests

THURSDAY, APRIL 28

10:00-10:22—*Chronic Purulent Otitis Media*
Samuel J. Kopetzky, M.D., Ralph Almour, M.D., Department of Otolaryngology, New York Polyclinic Medical School and Hospital.

10:25-11:07—*Peptic Ulcer*
Everett D. Kiefer, M.D., Department of Gastroenterology, Lahey Clinic.

11:09-12:00—*Cervicitis — Etiology — Diagnosis — Treatment*
Bela C. Balas, M.D., Herbert Schmitz, M.D., Department of Gynecology, Loyola University Medical School.

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

TWENTY-SECOND ANNUAL MEETING

PROGRAM

TUESDAY, APRIL 26, 1949

10:00 a. m.—Registration, Luncheon and Dinner Tickets
Lounge Floor

1:00 p. m.—Pre-Convention Board Meeting
Room 109, First Floor

3:30 p. m.—Informal 'get-together', tea will be served
Room 108, First Floor
All physicians' wives cordially invited

6:30 p. m.—Fellowettes' Dinner (by invitation only)

WEDNESDAY, APRIL 27, 1949

9:30 a. m.—General Session
Surf Room, Lounge Floor
Order of Business:
a. Invocation: Rev. Harvey Bennett, D.D., First Presbyterian Church, Atlantic City
b. Greetings: Mrs. Harry Subin, President, Woman's Auxiliary to the Atlantic County Medical Society
c. Response: Mrs. Norman Nathanson, President-Elect
d. Memorial Services for Departed Members
e. Reports

1:00 p. m.—Luncheon honoring Mrs. Robert B. Walker, President
Club 22, Lobby Floor
Toastmistress: Mrs. Frederick G. Wandall
Welcome: Mrs. Robert B. Walker, President
Greetings: J. Howard Hornberger, M.D., President, The Medical Society of New Jersey
William E. Dodd, M.D., Chairman, Advisory Committee to Woman's Auxiliary
Guest Speaker: Frank G. Dickinson, Ph.D., Director, Bureau of Medical Economic Research, American Medical Association, Chicago
Presentation of President's Pin:
To: Mrs. Robert B. Walker, President
By: Mrs. Lodovico Mancusi-Ungaro, Junior Past-President

3:00 p. m.—Business Session, continued
Surf Room, Lounge Floor
Order of Business:
a. Unfinished Business
b. Report of Nominating Committee
c. Election of Officers
d. Inauguration of Incoming President, Mrs. Norman Nathanson
e. Installation of Officers

6:30 p. m.—Social
Club 22, Lobby Floor

7:30 p. m.—Dinner Dance
Renaissance Room, Lounge Floor

THURSDAY, APRIL 28, 1949

10:00 a. m.—Post Convention Board Meeting
Room 109, First Floor

SCIENTIFIC EXHIBITS

Lounge Floor

Booth 1—Pathologic Diagnosis of Cancer — Raymond V. Brokaw, M.D., Samuel A. Goldberg, M.D., and Phyllis Stanley, M.A., M.T., Section on Cancer Control, New Jersey State Department of Health.

A presentation of (1) study materials, including color lantern slides showing clinical photographs, reproductions of gross specimens, photomicrographs; tissue slides; cancer reference library and motion picture films on cytology; (2) the program of a consultation service for pathologists, provided by the consulting board of tissue pathologists of the New Jersey Society of Clinical Pathologists and by the Army Institute of Pathology; and (3) a resumé of cytologic diagnostic methods by the aspiration, surface biopsy, and sponge biopsy technics.

Booth 2—Mycobacterial Forms in Tumor Cells —Virginia Wuerthele-Caspe, M.D., Roy M. Allen, D.Sc., James Hillier, Ph.D., and Paul Little, M.S., New Jersey Oncologic Society.

Cultures, 56 Kodachromes, charts, electron-photographs, transparencies, and pertinent literature.

Booth 3—Control of Cancer in Childhood — Harold W. Dargeon, M.D., The Children's Tumor Registry, Memorial Hospital, New York City.

Photographs and charts are presented to illustrate: (1) Cancer control as a major child health problem. (2) The familial tendency of certain varieties of childhood cancer. (3) The variability in the natural history of certain types of child cancer. (4) The problems of diagnosis, management, and evaluation of end results.

Booth 4—Experiences With Cytologic Study With Papanicolaou and Other Modified Technics —Salvatore J. Rose, M.D., St. Michael's Hospital, Newark.

A display, with the aid of photographs and drawings of the various forms of cytology and technics used in the study and diagnosis of tumors from various body fluids and exudates with both the Papanicolaou and modified methods.

Booth 5—Carcinoma of the Esophagus—Earl J. Halligan, M.D., Louis L. Perkel, M.D., and J. Kenneth Catlaw, M.D., Medical Center, Jersey City.

Charts, x-rays and transparencies showing the incidence, diagnosis, pathologic anatomy, and treatment of carcinoma of the esophagus.

Booth 6—Neoplasms of the Small Intestines— Royal A. Schaaf, M.D., and Samuel A. Goldberg, M.D., Presbyterian Hospital, Newark.

Group of Kodachrome transparencies of gross and microscopic specimens of tumors of the small intestines together with the history of each case.

Booth 7—Surgical Treatment of Rectal Cancer —Harry E. Bacon, M.D., and George D. Vaughan, M.D., Temple University Medical School, Philadelphia.

Cabinets displaying color slides of lower bowel lesions, movie screens and placards showing pre- and post-operative treatment, and colored transparent illustrations depicting the various steps of the surgical procedures of abdominoperineal prosto-sigmoidectomy, abdominoperineal resection (Miles) and anterior resection with end to end anastamosis.

Booth 8—Pheochromocytoma — Marvin C. Becker, M.D., Rose D. Bass, M.D., and Charles M. Robbins, M.D., Beth Israel Hospital, Newark.

Case history of a successfully diagnosed and removed pheochromocytoma. The exhibit presents the diagnostic approach to tumors of the chromaffin system producing hyperadrenalinism, including a description of the chromaffin system, pathology, clinical picture, newest methods of diagnosis, differential diagnosis and therapy of the condition. The importance of the condition is stressed.

Booth 9—Endocrine Factors in Infertility — Rita S. Finkler, M.D., George M. Cohn, M.D., and Sylvia F. Becker, M.D., Beth Israel Hospital, Newark.

Booth 10—Resection in the Treatment of Chronic Pulmonary Diseases—Herbert C. Maier, M.D., Frank Bortone, M.D., Samuel Cohen, M.D., and Benjamin P. Potter, M.D., B. S. Pollak Hospital for Chest Diseases, Medical Center, Jersey City.

This exhibit emphasizes the therapeutic role that pulmonary resection is now playing in the treatment of tuberculosis, pulmonary abscess, bronchiectasis, and bronchogenic carcinoma. Advances in anesthesia, surgical technic and chemo-therapy, have been largely responsible for this progress in thoracic surgery. Indications for resection together with operative data (complications and results) are presented. A number of illustrative cases are submitted. Intimate liaison between surgical and medical teams is vital for the attainment of best results.

Both 11—Beryllium Granulomatosis—Raphael Pomeranz, M.D., and Henry A. Brodkin, M.D., Newark.

Transparencies demonstrating the histopathology of the lesions, comparative microscopic studies with silicosis and other pneumoconioses. X-ray studies of various phases of the lesions are shown, and diagnostic tests are presented. Results of post-radiation effects will be demonstrated in two different phases of the lesions.

Booth 12—Congenital Chest Deformities (A New Interpretation)—Henry A. Brodkin, M.D., Newark.

Pre- and post-operative x-rays and pictures of patients who had congenital chondrosternal prominence (commonly known as funnel breast and pigeon breast); mounted specimens of diaphragms and charts to indicate that these chest deformities are congenital and are due to a faulty development of the diaphragm. Most pediatrics textbooks assert these are due to rickets, intra-uterine compressions and various other factors. This exhibit will point out the fallacy of these theories as well as support this new interpretation.

Booth 13—Venous-Pressure Studies in Childhood—Harrold A. Murray, M.D., Victor Rudomanski, M.D., and John Crosby, M.D., St. Michael's Hospital, Newark.

Demonstration of a new instrument for determining venous pressures, easily and inexpensively constructed—technic simplified, operated by one person permits determination of serial readings using same vein. One hundred case reports demonstrating normal and abnormal readings in va-

rious diseases of childhood affecting venous pressure.

Booth 14—Hypoplastic Kidney and Atrophic Pyelonephritis—Samuel E. Kramer, M.D., and J. S. Ritter, M.D., Urology Department, New York Polyclinic Medical School and Hospital, New York.

Newer methods of diagnosis of small kidney mass by perirenal insufflation in addition to regular procedures of retrograde and excretory urography. Differentiation between congenital hypoplasia, aplasia and acquired atrophic pyelonephritis with terminal atrophy in experimental animals. Case reports with histopathologic study of surgical specimens.

Booth 15—Phthalylsulfacetimide in Ulcerative Colitis—Theodore S. Heineken, M.D., Bloomfield.

A new and effective orientation to therapy in this stubborn disease.

Booth 16—Cardiology in a Psychiatric Hospital—Albert Abraham, M.D., U. S. Veterans Hospital, Lyons.

Clinical notes, sketches, and electrocardiograms dealing with unusual cardiologic incidents in a psychiatric hospital, e.g., cases of carotid sinus sensitivity diagnosed previously as epilepsy; problems of "heart consciousness", et cetera.

Booth 17—Pulmonary Edema — Thomas J. White, M.D., Abraham E. Jaffin, M.D., Carroll M. Leevy, M.D., Angelo M. Gnassi, M.D., and H. Preston Price, M.D., Medical Center, Jersey City.

(1) Clinical diagnostic criteria including symptoms, signs, laboratory abnormalities, roentgenologic and electrocardiographic changes in pulmonary edema. (2) Gross and microscopic pathology of pulmonary edema. (3) Predisposing causes of pulmonary edema in 257 post mortem cases. (4) Pathophysiology of pulmonary edema with indicated therapy and prophylaxis. (5) Results of therapy in Jersey City Medical Center.

Booth 18—Plastic Surgery—Lyndon A. Peer, M.D., and John Walker, M.D., Newark.

Motion pictures and still photographs of various plastic operations, with "before and after" studies and display of surgical technic.

Booth 19—Plastic and Reconstructive Surgery—Julius Newman, M.D., Newark.

Photographs showing stage reconstructive military and civilian surgery.

Booth 20—New Jersey Formulary Preparations—Albert B. Kump, M.D., Chairman, Joint Committee on Professional Relations.

A display of New Jersey Formulary preparations.

Booth 21—Rehabilitation—New Jersey Rehabilitation Commission.

Booth 21-A—Plastic Surgery in Rehabilitation of the Veteran—Michael L. Lewin, M.D., and Burton L. Olmsted, M.D., Veterans Hospital (Halloran), Staten Island, New York.

The activities of the plastic surgery service at the Halloran VA Hospital since its initiation two years ago. The rehabilitation of the injured and handicapped veteran is emphasized, with particular reference to the late care of the service connected disabilities. This includes: maxillo-facial surgery, correction of nasal deformities, use of implants, surgery of the external ear, treatment of deformities of the face and extremities, and the role of plastic surgery in the rehabilitation of the paraplegic patient. The contribution of the plastic surgeon to the work of the surgical service is shown in treatment of malignancies, ulcerations, et cetera.

Booth 22—Cancer Detection in General Practice—American Cancer Society, New Jersey Division.

Kodachrome pictures vividly illuminated from the back. The side panels emphasize the role played by the family physician in cancer detection through the use of his hands, eyes, and ears.

Booth 23—New Jersey State Department of Institutions and Agencies—A review of the State agency responsible for our State mental and psychiatric hospitals and for State-level welfare and correctional work in New Jersey.

Booth 24—Complications of Diabetes Mellitus—William S. Collens, M.D., Nathan D. Wilensky, M.D., Louis C. Boas, M.D., James D. Zilinsky, M.D., and Jerome J. Greenwalk, M.D., Maimonides Hospital, Brooklyn, N. Y.

Color prints and charts depicting the following complication of diabetes mellitus: Insulin lipoatrophy, lipohypertrophy, peripheral neuropathy, Kummelstiel-Wilson syndrome, acute arterial thrombosis, varieties of gangrene, xanthomatoses and vitamin deficiency states. The diagnostic and therapeutic aspects of these conditions will be stressed in the demonstrations.

Booth 25—The Guild Way: "A Medical Eye Examination"—J. Norwood Van Ness, Chairman, The Guild of Prescription Opticians of New Jersey, Inc.

An exhibit which will encourage all medical doctors to send all eye cases to ophthalmologists.

Booth 26—The New Jersey Heart Association, Inc.

The New Jersey Heart Association, its purpose, immediate goal, and long range objectives. Posters, photographs and charts about the heart and types of heart disease.

Booth 27—The Convalescent Patient — Kate Macy Ladd Convalescent Home, Far Hills.

Photographic presentation of the facilities of the Kate Macy Ladd Convalescent Home: This will include treatment rooms, clinical laboratory, x-ray room, physical therapy facilities, et cetera. Side panels utilize poster media to present medical factors in convalescent care.

Booth 28—Angiocardiography — William A. Leff, M.D., and Nathan J. Furst, M.D., Beth Israel Hospital, Newark.

Demonstrations of the prime importance of angiocardiography as a diagnostic aid in congenital heart disease, luetic heart disease, differentiation of extra-vascular masses in the mediastinum and around the heart and involvement of the pulmonary arteries in bronchogenic carcinoma. Especially instructive in the help it offers in understanding the normal and abnormal filling of the chambers of the heart and its great vessels.

Booth 29—Treatment of Infections of the Respiratory Tract With Detergent Antibiotic Therapy—Edwin J. Grace, M.D., and Vernon Bryson, M.D.,

The Grace Clinic and The Biologic Laboratory, Cold Spring Harbor, New York.

The result of four years' experience in the treatment of respiratory disease with topical application of antibiotics in surface active solution is presented. Included are data on controlled laboratory experiments involving treatment of experimentally induced pneumonia in mice with penicillin-zephiran aerosols. General principles of human treatment are described, together with summarized clinical histories of representative respiratory infections, including chronic and acute sinusitis, pulmonary tuberculosis, putrid lung abscess, tuberculosis empyema in pre- and post-antibiotic eras, chronic lung abscess with cutaneous fistulas. Emphasis is on topical application with modification of technic adapted to specific clinical problems.

Booth 30—Atheromatosis — Complications and Sequellae, Diagnosis and Treatment—Joseph B. Wolffe, M.D., Victor A. Digilio, M.D., Anthony D. Dale, M.D., M. B. Plungian, M.D., Joseph Sprowls, M.D. Frederick James, M.D., Miss Claire Einhorn, and Mr. George Werkheiser, Wolffe Clinic and Research Department, School of Pharmacy, Temple University, Philadelphia.

The exhibit describes the pathogenesis, pathology, pathologic-physiology and experimental basis of atheromatosis. It describes the central and local complications and sequellae of this disease and displays complications heretofore undescribed. Photographs illustrate these complications and sequellae. The method of prevention is described in detail. Diagnosis is considered on a general and local level. The treatment takes into account the therapy of this vascular disease in a general sense plus that of the various complications.

Booth 31—A New Theory of Thrombosis—Sylvan E. Moolten, M.D., and Leo Vroman, St. Peter's General Hospital, New Brunswick.

Platelet adhesiveness and endothelial "wettability" are the governing factors in thrombus formation. Platelet adhesiveness as well as total count are increased by thrombocytosin, a lipoid of body fat, also found in the spleen where thrombocytopen, its direct antagonist, is produced. Thrombosis may result from (1) mobilization of thrombocytosin from tissues traumatized surgically or otherwise, and (2) slight vascular injury, sufficient to impair endothelial non-wettability locally. Both factors probably govern the rate of local clumping of platelets to form a plug (white thrombus). Clotting "en masse" secondarily (red thrombus) is facilitated by lysis of platelets in the white thrombus. The glass-wool filter test for platelet adhesiveness is explained, with its application in pre-clinical recognition of thrombosis and interpretation of other conditions. The principles of endothelial non-wettablity and wettability are illustrated.

Booth 32—The Committee on Medical Education of The Medical Society of New Jersey—Henry B. Decker, M.D., Chairman.

This exhibit consists of charts illustrating the function of the committee on education and its subcommittees.

TECHNICAL EXHIBITS

Lounge Floor

Booth 1—White Laboratories, Inc., Newark, N. J.—New Mol-Iron tablets are featured. Recent clinical evidence will be available, demonstrating the more rapid hemoglobin regeneration and better gastro-intestinal tolerance obtained with molybdenized ferrous-sulfate therapy. Other *White Laboratories* products will be available for your inspection.

Booth 2—Parke, Davis & Co., Detroit, Mich.—Members of the *Parke, Davis & Company* Medical Service Staff will be on hand at our Commercial Exhibit for consultation and general discussion of the products classified in our pharmaceutic, antibiotic, and biologic lines. Important specialties, such as penicillin S-R, benadryl, vitamin products, hypnotics, antibiotics, etamon, oxycel, thrombin topical, influenza virus vaccine, and other biologics will be featured. You are cordially invited to visit our booth with the assurance that your interest will indeed be very much appreciated.

Booths 3-4—Picker X-Ray Corporation, New York, N. Y.—Picker X-Ray Corporation will exhibit the *Century* self-contained unit providing for fluoroscopy and radiography in all positions from the vertical to the Trendelenberg. This unit is shown as a 100 milliampere installation, but it is obtainable also as a 200 milliampere unit. Also on display: the improved *Gynograph* for utero-tubal insufflation.

Booth 5—W. B. Saunders Company, Philadelphia, Penna.—We invite all doctors attending the meeting of The Medical Society of New Jersey to visit our exhibit where our representative, Mr. Charles Melhinch, will be in charge. We will display a complete line of our books including Hyman's *Integrated Practice of Medicine,* Bockus' *Gastroenterology,* Conn's *Current Therapy,* Meleney's *Treatment of Surgical Infections,* Snyder's *Obstetric Analgesia,* Lyons & Woodhall's *Atlas of Peripheral Nerve Pathology,* Crile's *Practical Aspects of Thyroid Disease,* DeGowin, Hardin & Alsever's *Blood Transfusion,* Levine & Harvey's *Clinical Auscultation of the Heart,* Fine's *Care of the Surgical Patient,* Dowling's *Acute Bacterial Diseases,* Brams' *Treatment of Heart Disease,* new editions of McLester's *Nutrition and Diet in Health and Disease,* Weiss & English's *Psychosomatic Medicine,* Beckman's *Treatment,* Cecil's *Medicine,* Christopher's *Minor Surgery,* and many others.

Booth 6—Cosmevo Surgical Supply Company, Paterson, N. J.

Booth 7—Hanovia Chemical and Manufacturing Co., Newark, N. J.—Hanovia will exhibit in booth 7 a complete line of ultraviolet quartz lamps for orificial and general body irradiation. Sollux radiant heat lamps and germicidal lamps for the destruction of airborne bacteria will also be demonstrated. The new short wave diathermy ma-

chine will be introduced and will be worth your while to see. Competent and courteous representatives will be at your disposal.

Booth 8—Lanteen Medical Laboratories, Inc., Chicago, Ill.—*Lanteen Medical Laboratories, Inc.,* cordially invites you to visit booth 8. Representatives will discuss the improved diaphragm fitting technic and point out the merits of the *Lanteen Flat Spring Diaphragm.* Other well known *Lanteen* products will also be featured in the exhibit.

Booth 9—G. D. Searle & Co., Chicago, Ill.—You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle "Products of Research".

Featured will be ruphyllin, for abnormal capillary fragility, hydryllin, new and effective antihistaminic, as well as such time-proved products as Searle aminophyllin in all dosage forms, metamucil, ketochol, floraquin, kiophyllin, diodoquin, pavatrine and pavatrine with phenobarbital.

Booth 10—C. R. Sturm, Cliffside Park, N. J.—As usual, C. Sturm will personally demonstrate his famous line of high class physio-therapy machines, known and used for over 30 years. In addition to the remarkable Terma built, 27120 kilocycle short wave diathermy machine *Commander,* (which at last year's convention met with the profession's instant acclaim) a new less expensive, two-piece cabinet short wave apparatus, Type FS-200, F.C.C. approved, will be featured. This diathermy unit emanates plenty of power for work with pads, genuine induction cable or minor surgical operations. It can also be equipped with air space or joint arms.—See, try, convince yourself.

Low voltage generators, infra-red, ultra violet ray, spot, magnifying lamps, unique vibratory units will be shown. A large and selected line of surgical instruments, Boelm diagnostic otoscope and rectal sets, bandages, histacount steel cabinets, bags, etc., will be on display. Ask for list of equipment and quotations.

Call at booth 10—get acquainted—personally—with the superb equipment and reasonable prices.

Booth 11—Saratoga Springs Authority, Saratoga, Springs, N. Y.—This exhibit consists of pictorial information to explain facilities available to the public at the New York State owned Saratoga Spa as a part of the state's public health service. The center theme is an aerial view of the 1200 acre reservation. It emphasizes treatments with naturally carbonated mineral waters, bottled water, and recreational features. State bottled geyser water will be served by an attendant throughout the meeting.

Booth 12—Holland-Rantos Company, Inc., New York, N. Y.—Featured in the Holland-Rantos exhibit will be *Nylmerate Jelly* for the effective treatment of trichomonas vaginitis, non-specific vaginal discharges and for post-cauterization therapy.

Ask to see the anatomically-correct *Pelvi-Form* clinical teaching model with its unique "swinging" uterus, *H-R lubricating jelly, Rantex masks, Dilaspray* vaginal syringe and *Koromex* contraceptive specialities in attractive "streamlined" packaging.

Representatives will be pleased to discuss H-R products of particular interest to you.

Booth 13—General Electric X-Ray Corporation, Philadelphia, Penna. — General Electric X-Ray Corporation, largest manufacturer of x-ray and electro-medical apparatus in the world, will present a representative display of its products, including leading items in its extensive line of accessories and supplies. Representatives from the firm's two sales offices in New Jersey—at Trenton and Newark—will be available for consultation and inquiries. Some of the apparatus to be shown will be the product of the company's new research laboratory, which was recently dedicated to Dr. William D. Coolidge, director emeritus of the G-E Research Laboratory at Schenectady, and internationally known as "father of the modern x-ray tube".

Booth 14—Hoffmann-La Roche, Inc., Nutley, N. J.—Roche will feature thephorin ointment, a superior anti-pruritic. Thephorin ointment, which contains 5 per cent thephorin (a superior antihistamine) in a carbowax base, is especially valuable in the treatment of allergic dermatoses, pruritus and insect bites. Thephorin, also available in liquid and tablet form, is used in the control of allergic disorders.

Presidon *Roche,* the new sedative-hypnotic which is not a barbiturate but a pyridine derivative, will also be displayed. Presidon, supplied in scored 0.2 Gram tablets, is mild and well tolerated by young and old patients alike.

Booth 15—Schenley Laboratories, Inc., New York, N. Y.—The Schenley Laboratories' exhibit features titralac, an extremely palatable antacid with a titration curve very similar to that of milk. Also on display will be rutaminal, an exclusive Schenley specialty combining rutin, aminophylline, and phenobarbital; orapens—buffered penicillin tablets of varying strengths; monocillin, a procaine penicillin product producing 96 hour blood levels; and aquacillin, procaine penicillin for aqueous injection. Samples of various products will be available. Well informed personnel will be in attendance.

Booth 16—Winthrop-Stearns, Inc., New York, N. Y.—Winthrop-Stearns, Inc., New York, extends a cordial invitation to visit booth 16, where representatives will be on hand to discuss the latest therapeutic contributions made by this firm. Featured will be isuprel, new, more efficient and convenient bronchodilator, tablets for sublingual use, solution for inhalation; neocurtasal, sodium-free seasoning agent; neo-synephrine, well tolerated prolonged decongestive.

Booth 17—The Doho Chemical Corporation, New York, N. Y.—The makers of auralgan are featuring at this meeting their new sulfa preparation, otosmosan, indicated in the treatment and control of chronic suppurative ears.

Also, Mallou, Division of Doho, is introducing our new topical anesthesia, rectalgan, for relief of pain and itching in hemorrhoids and pruritus. This new therapy enjoys many advantages over the outmoded suppositories and ointments.

Our representatives will be happy to explain in detail the workings of these medications.

Booth 18—Smith, Kline and French Laboratories, Philadelphia, Penna.—*'Benzedrine' Sulfate and 'Dexedrine' Sulfate*—'Benzedrine' Sulfate (racemic amphetamine sulfate, S.K.F.) has, through the years, grown steadily in clinical usefulness. Today, it is one of the fundamental drugs in daily medical practice.

'Dexedrine' sulfate (dextro-amphetamine sulfate,

S.K.F.) was developed in the search for an even more outstanding anti-depressant. Largely because of the striking preponderance of its central nervous effect over its weak peripheral activity, it has become the drug of choice in most cases. In weight reduction, it is generally recognized as the most effective drug available for control of appetite.

Booth 19—Endocrine Company, Union City, N. J.—Featuring testosterone, estrogenics and high potency tocopherols, parenteral and oral.

Booth 20—Mead Johnson & Company, Evansville, Ind.—The newer knowledge of medical nutrition is translated into practical application with the products and diet services at the Mead Johnson exhibit.

There are new Mead products for the pediatrician. There will be special products for the obstetrician. Mead's pioneering of the protein field has perfected amigen for parenteral and protenum for oral use.

There will be Mead representatives present.

Booth 21—Eli Lilly and Company, Indianapolis, Ind.—Your Lilly medical service representative cordially invites you to visit the Lilly exhibit located in booth 21. Many new therapeutic developments will be featured and literature on these products will be available. Lilly medical service representatives are to be in attendance to aid visiting physicians in every way possible.

Booth 22—Ortho Pharmaceutical Corporation, Raritan, N. J.—Ortho cordially invites you to booth 22. Featured will be ortho-gynol and ortho-creme for conception control. Newer gynecologic and obstetrical therapeutic specialties for the control of vaginitis will be displayed. Well trained representatives will be on hand to discuss any of these products with you.

Booth 23—M & R Dietetic Laboratories, Inc., Columbus, Ohio—M & R Dietetic Laboratories, Inc., booth 23, will display similac, a food for infants. Our representatives will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding cases.

Booth 24—Lederle Laboratories Division, American Cyanamid Company, New York, N. Y.—You are cordially invited to visit our exhibit in booth 24, where you will find representatives who are prepared to give you the latest information on Lederle products.

Booth 25—Camel Cigarettes, New York, N. Y.—*Camel* Cigarettes will feature color slides of background data from their newest research. After weekly examinations of the throats of hundreds of men and women smoking *Camel* Cigarettes exclusively for thirty days, throat specialists reported "not one single case of throat irritation due to smoking *Camels.*"

Booth 26—Vaponefrin Company, Upper Darby, Penna.

Booth 27—Sandoz Chemical Works, Inc., New York, N. Y.—Among recently released Sandoz medicinal specialties are—methergine (methyl ergonovine) a partial synthetic oxytocic; mesantoin (methyl-phenyl-ethyl hydantoin) and hydantal (mesantoin plus phenobarbital) anti-convulsants for the control or reduction in the frequency of epileptic seizures; dihydroergotamine 'Sandoz' (D. H.E.-45), the improved non-narcotic relief for migraine-dihydroergotamine lessens incidence of nausea and vomiting, uterotonic effect of ergotamine is practically eliminated, sympathico-inhibitory effect is enhanced: Other well known Sandoz products include belladenal, bellergal, bellafoline, cedilanid, digilanid, neo-calglucon syrup and ampul solution.

Booth 28—C. B. Fleet Company, Inc., Lynchburg, Va.—C. B. Fleet Co., Inc., cordially invites you to stop by booth 28 for a short visit with Mr. Harold Stratton and Mr. Douglas Henderson, the representatives who see you in your office about once a year. Perhaps there is something about Phospho-Soda (Fleet), the pure, stable, aqueous concentrate of the two U.S.P. sodium phosphates, you would like to discuss with them.

Booth 29—Nestle's Milk Products, Inc., New York, N. Y.—For your relaxation, The Nestle Company cordially invites you to enjoy a delicious hot cup of Nescafe. And, for your information, specially qualified representatives will be on hand to answer your questions on any of Nestle's milk products—already best known and most used for babies 'round the world. New pieces of valuable professional literature will be available.

Booth 30—Baldwin Pharmacal Co., Newark, N. J.—The Baldwin Pharmacal Co., Inc., will exhibit several interesting products among them being: *Ruceman tablets*—for hypertension; *Theratone 'B'*—a sugar free phenobarbital and vitamin B factor preparation; 2M-16 *tablets effervescent*—containing atropine sulphate with sodium phenobarbital. The *gold leaf* line of injectables with A.M.A. Council accepted aminophyllin will be on display.

A sample package of 6 ampules of the most popular of the Gold Leaf injectables as well as samples of other products will be available to all physicians.

Booth 31—Faulhaber and Heard, Inc., Newark, N. J.—Since 1922 there has been a progressive development of the special professional liability contract available to members of The Medical Society through the official broker. Members who have not taken advantage of this important feature of their membership can obtain full particulars or immediate coverage upon inquiry at booth 31.

Booth 32—E. and W. Blanksteen, Jersey City, N. J.—Well over 50 per cent of the members of The Medical Society of New Jersey are subscribers to the Physicians Special (Disability) Policy of The Medical Society of New Jersey disability plan through E. and W. Blanksteen (National Casualty Company), the officially authorized accident and health insurance agents of the Society.

Those not yet insured under this special plan, which is the most widely endorsed plan of disability insurance among medical and dental societies in the metropolitan area, are invited to make application to the agents.

Booth 33—Sharp & Dohme, Inc., Philadelphia, Penna.—Visitors are cordially invited to visit the Sharp & Dohme exhibit in booth 33. Stable, portable 'lyovac' normal human plasma irradiated to destroy not only bacteria but also the viral contaminants that might cause homologous serum hepatitis merits your attention. Unusual specialties including the popular sulfonamide and antibiotic drugs also will

be of major interest. Courteous attendants will be pleased to serve you.

Booth 34—Lissco Medical Company, Inc., Newark, N. J.—Lissco Medical Co., Inc., moved last June to within "a stone's throw of the Academy of Medicine of Northern New Jersey". They welcome you to booth 34. Lissco are manufacturers' representatives for nearly every company in the industry, including the pharmaceutical companies. They have a very complete line of instruments, diagnostic equipment, x-ray, furniture, supplies and sundries. They are always striving to increase their services so that they can take care of any requirements of the physician or hospital. Their slogan is "service professionalized".

Booth 35—The Mennen Company, Newark, N. J.—The Mennen Company will exhibit Mennen antiseptic baby oil, new baby oil with lanolin, baby powder, Mennen castile baby soap, Tips-for-Tots (cotton tipped applicators) and baby cream; also their fungicidal foot powder: quinsana.

Booth 36—Philip Morris & Co., Ltd., Inc., New York, N. Y.—Philip Morris & Company will demonstrate the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Booth 37—Pet Milk Sales Corporation, St. Louis, Mo.—Specially trained representatives will be in attendance to discuss the use of Pet Milk in infant feeding, and to present many services that are time-savers for busy physicians. Miniature Pet Milk cans will be given to visitors at the exhibit.

Booth 38—Cameron Surgical Specialty Company, New York, N. Y.—Visit the Cameron Surgical Specialty Company booth. New instruments are always interesting. We have several new and unusual instruments this year. See the Boros Flexible esophagoscope in stainless steel—the new dualite (a light at each end) sigmoidoscope and the flexible coagulation attachment. See the 12-pound electro-surgical unit that cuts under water and sells for $175. Also, electro-surgical units in six sizes, including the *Major*—2-tube 4-gap machine. Diagnostic instruments are our specialty. The new Cameron stainless steel bronchoscope outfit will be on display, as well as the Lempert headlite and the binocular loupe with a 10-inch focus.

Booth 39—The Coca-Cola Company, Atlanta, Ga.—Ice-cold Coca-Cola served by the courtesy of the Coca-Cola Bottling Company, Atlantic City, and The Coca-Cola Company.

Booth 42—Rare Chemicals, Inc., Harrison, N. J.—While this company manufactures many distinctive specialty pharmaceuticals, Rare Chemicals, Inc., is especially well-known in the field of detergents and hormones. Acidolate and dermolate, the skin detergents, as well as terjolate, the new household detergent, are Rare products. Their hormone preparations include testosterone propionate and methyl testosterone (the only Council-Accepted androgenic preparations), dienestrol *Rare*, estrogenic substances *Rare*, chronic gonadotropin *Rare* and progesterone *Rare*. These preparations will be exhibited, in addition to new forms of eucupin, the long-lasting local anesthetic-analgesic; also salysal, the potent salicylate which requires no alkalis.

Booth 43—Bilhuber-Knoll Corporation, Orange, N. J.—The fine medicinal chemicals which fill a most important place in the physician's armamentarium of dependable and useful medication, bromural, dilaudid, metrazol, octin, theocalcin, etc., are found at the Bilhuber-Knoll booth 43. Each is adaptable for prescribing alone or in combinations to meet the needs of the individual patient.

Visit their exhibit for the latest developments among these and their other prescription chemicals.

Booth 44—South Jersey Surgical Supply Co., Red Bank, N. J.—*South Jersey Surgical Supply Co.* of Red Bank, established 18 years ago by Mr. and Mrs. Wm. Adam, was purchased in January 1948 by Mr. Morton Winner, in the hope of expanding the services of the company more thoroughly to the hospitals and medical profession.

This has been achieved, and in this short time, they have obtained all desirable franchises for biologicals, dressings, and major and minor equipment. In the equipment lines, they feature the Continental x-ray machine; the Edin direct writing electrocardiograph; the Burdick, Fischer, ACMI and Garfield diathermies; Hanovia ultra violet lamps, along with numerous distributorships for minor equipment.

The main offices of the Company are at 16 West Front Street, Red Bank, N. J., where twenty-four hour service is maintained.

Booth 45—The Borden Company, New York, N. Y.—A new improved better than ever *Biolac* is presented in Booth 45—better nutritionally and better physically. Unchanged are the dilutions, analysis, caloric values, vitamin fortification, and ease of feeding. This new improved biolac, a liquid modified milk for infant feeding, brings to you the latest findings of nutritional science . . . at no increase in cost.

Booth 47—Burroughs Wellcome & Co., Inc., Tuckahoe, N. Y.—Among significant products featured will be *'Wellcome'* brand *Globin Insulin* with Zinc 'B. W. & Co.', which provides an action which is timed to be more suitable for the average diabetic; *'Dexin'* brand high dextrin carbohydrate, in which the non-fermentable proportion predominates; *Digoxin*, the pure, stable, crystalline glycoside which offers predictable digitalization; and *'Methedrine'*, a recent sympathomimetic drug of wide therapeutic application.

Booth 49—Gerber Products Company, Fremont, Mich.—*Gerber's* is a complete line of baby foods. A trio of cereals, strained and junior fruits, vegetables and desserts plus strained and junior meats prepared from Armour quality beef, veal and liver.

Professional representatives will be at the Gerber exhibit to show you just how complete a baby's menu can be.

Booth 50—Desitin Chemical Company, New York, N. Y.—Desitin ointment, the pioneer in external cod-liver-oil therapy combines crude high potency Norwegian cod-liver-oil, zinc oxide and talcum in a lanolin petrolatum base. Owing to its content of a balanced and standardized crude cod-liver-oil, Desitin ointment alleviates pain and relieves itching promptly. It promotes granulation and epitheliazation. Desitin ointment is not liquefied under body temperature nor decomposed by

secretion, forming therefore a perfect protection for the skin.

Indications: Post-operative dressings; slow-healing wounds; indolent varicose chronic ulcers; burns of all degrees; lacerations; bed sores; hemorrhoids and fissures.

Desitin powder: A unique medicinal toilet powder. It contains crude cod-liver-oil, zinc oxide, magnesium oxide and talcum.

Booth 51—Homemakers' Products Corporation, New York, N. Y.—*Diaparene* (formerly called *Diapene)*—non-volatile, non-mercurial antisepsis for skin and diaper as protection against irritating bacteria deposited on skin by stool and urine. Comes in ointment for skin and as tablet for antiseptic rinsing of genital napkin to prevent ammonia formation. Non-irritating, non-toxic.

Booth 52—Whittier Laboratories, Chicago, Ill.—You are cordially invited to visit Whittier Laboratories' exhibit where resmicon and chlorothen are being introduced to the medical profession. Other products displayed are ertron, arthralgen, bezon, infron, and laurium. To every physician registering, a Whittier arthrometer will be sent free upon his request. The arthrometer is an efficient goniometer for measuring joint mobility, an index to the arthritic patient's progress with ertron.

Booth 53—E. R. Squibb & Sons, New York, N. Y.—*E. R. Squibb & Sons* will feature dihydrostreptomycin and the new penicillin dispolator.

Booth 54—L. & B. Reiner, Inc., New York, N. Y.—*Another Reiner first.* Come over and let us show you the Brociner-Mass Clinical Analyzer, a unit which now makes it possible for the physician to do routine laboratory tests in his office, quickly, conveniently, and accurately. Red cell counts will be done for you while you watch in a matter of approximately 10 to 15 seconds. Come and be convinced. Also on display will be those outstanding units, the Jones Motor Basal Metabolism apparatus, the finest metabolism apparatus ever built, combining simplicity of operation with comfort of the patient and accuracy. Also being shown and demonstrated will be the EPL Cardiotron, the original direct-recording electrocardiograph. The PC-2 now takes 15 interference-free, accurate leads in less than one minute. Let us take your tracing, doctor!

Booth 55—U. S. Vitamin Corporation, New York, N. Y.—Enlarged color photographs of common oral lesions of nutritional deficiencies including glassitis, cheilosis, gingivitis and others . . . as well as improvement following administration of complete vitamin therapy. Also, professional samples and literature on *vi-syneral, vi-syneral vitamin drops, poly-B, vi-litron, hypervitam, lipo-heplex, rutin-rutascorb, methischol, tri-sulfanyl, vi-syneral injectable* and others.

Booth 56—Carnation Company, Los Angeles, Calif.—You are invited to visit booth 56 where you will see an attractive display on Carnation Evaporated Milk—"the milk every doctor knows". Some valuable information on the use of this milk for infant feeding, child feeding, and general diet will be presented and the method by which Carnation is generously fortified with pure crystalline vitamin D — 400 U.S.P. units per reconstituted quart — will be explained. Interesting literature will also be available for distribution.

Booth 57—The Alkalol Company, Taunton, Mass.—*Alkalol*—The balanced alkaline, saline solution for the treatment of mucous membranes and irritated tissues. Bland—non-toxic—effective. A favorite since 1896.

Irrigol—A powder which in solution makes an aseptic slightly astringent vaginal douche. It is widely used also for colonic irrigations and as an effective rectal enema.

Booth 58—Ciba Pharmaceutical Products, Inc., Summit, N. J.—The Ciba exhibit of "Economical Hormone Therapy" will feature *metandren* linguets, the most potent oral androgen in tablets designed for absorption through sublingual mucosa; *lutocylol* linguets, orally effective progestogen especially designed for sublingual absorption; and *eticylol,* the most potent oral estrogen.

Representatives in attendance will gladly furnish literature and answer questions about these and other Ciba products.

Booth 59—Schering Corporation, Bloomfield, N. J.—*Buccal Tablets* of *Oreton, Progynon, Proluton,* and *Cortate* with the new base polyhydrol, will be featured at the Schering exhibit. Developed in the Schering research laboratories, the new polyhydrol base provides a means of completely utilizing hormones without the necessity of injection. *Trimeton,* an outstanding antihistamine and *thalymyd,* Schering's brand of phythalylsulfacetamide, a new sulfonamide extremely effective in ulcerative colitis and enteric infections, will highlight the exhibit.

Schering representatives will be present to welcome you and will be happy to answer inquiries concerning Schering's new products as well as their other hormone, x-ray diagnostic, chemotherapeutic, and pharmaceutical specialties.

Booth 60—The Robert H. Wuensch Company, East Orange, N. J.—The members of the medical profession are assured that at the Wuensch booth they will find several new and interesting innovations in surgical appliances and garments, orthopedic footwear, etc. Mr. and Mrs. Wuensch, along with three members of their staff, will be on hand to greet the doctors and their guests. The staff will include Mr. William Case, head of the Juvenile Shoe Department, Mr. Douglas J. Demarest, Manager of the Surgical Department, and Miss Helen S. Brinley, Professional Service Representative.

Booth 61—The Liebel-Flarsheim Company, Cincinnati, Ohio — The Liebel-Flarsheim Company cordially invites you to stop at booth 61 for examination and demonstration of their latest model diathermy and Bovie electro-surgical apparatus. Capable representatives will be on hand at all times to answer your questions about physical therapy and electrosurgical apparatus. We hope you will stop by so that we may become acquainted.

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THE TEACHING HOSPITAL AND THE NATIONAL HEALTH SERVICE

Dr. Leslie J. Witts, Professor of Clinical Medicine at the University of Oxford, will talk on "The Teaching Hospital and the National Health Service" at the staff meeting of the Ventnor Clinic on Wednesday, May 4, Haddon Hall, Atlantic City, at 9:00 p. m. All physicians are welcome to participate in this interesting discussion.

TELEVISION FOR HOSPITAL PATIENTS

The Paterson General Hospital now provides television service in private rooms. Cost to the patient is $2.00 per day or $10.00 per week. The hospital rents the television sets from a New York company which installs and services them. Other hospitals wishing to know the results of this experiment or the address of the renting company may communicate with The Director, Paterson General Hospital, Paterson, N. J.

JOURNAL BACK ISSUES WANTED

To complete their files, the Library of the Presbyterian Hospital in Newark needs copies of the JOURNAL of The Medical Society of New Jersey for July 1926, July 1928, February 1931, April 1931 and April 1933. Any member of the Society who has any of these issues available is requested to send them to Dr. Royal A. Schaaf, Medical Director, Presbyterian Hospital, Ninth Avenue at Ninth Street, Newark, N. J.

THE MEDICAL SOCIETY OF NEW JERSEY ANNUAL REPORTS TO THE HOUSE OF DELEGATES

APRIL 25-28, 1949

PRESIDENT

J. Howard Hornberger, M.D., Roebling

The administrative year now closing began under circumstances that portended a very normal, perhaps casual, period—although interesting, we hoped. Our colleagues had for the most part returned from foreign soil; they were again a part of us. We had been fortunate in securing and getting acclimated a fine Executive Officer. The largest and probably the finest of our annual conventions had just been concluded.

The front of the regimentation of medicine then seemed to have blown itself out far beyond our horizon. The war was over and we again were to sail in peaceful harbors of routine and contentment.

It was not to be. Instead we find ourselves now engulfed in the most terrific war—and not a cold one—of our professional history, one which has aroused the officials as well as the rank and file of organized medicine as never before. As is usual, we in New Jersey are taking a leading role in this drive for the preservation of a free medical profession.

Our "Public Health Week" last fall aroused a great deal of interest, not only in our own profession, but among the general public. It demonstrated to the public our interest and our ability to provide leadership in the field of public health education. My sincere thanks to Drs. Blaugrund and Kalb for a splendid job.

Our Clinical Conference was well attended and extremely well conducted by our colleagues in Mercer County.

The work of the Woman's Auxiliary has been exceptional and cannot go unmentioned. Their rural health forum last June is still very favorably commented upon. We owe them a big vote of thanks.

The Auxiliary is now engaged in an ambitious, well-conceived, carefully organized plan to provide programs in rural health education to our local Granges and other societies throughout the rural areas of New Jersey. This plan was launched by the forum last June, and has been accorded approval and cooperation by many influential organizations in our own state. And it has received nation wide notice.

All of our committees have worked conscientiously and well, often at considerable inconvenience to themselves. If space permitted we should like to go through the entire list of committees, singling out their accomplishments and expressing our sincere gratitude to each of them. A few of our major committees must receive special notice. The Medical Practice Committee, for example, has been extremely alert in our behalf, likewise the Subcommittee on Legislation, which has had an unusually busy year due to the general reorganization of our state government. The work of Dr. Quigley, executive secretary of this subcommittee, is recognized both by the profession and by all other important agencies in our state. His knowledge of legislative affairs and his wise counsel in this field have also been recognized again and again during the year by the American Medical Association. We are fortunate to have such a man representing us in our legislative relationships and we all owe Dr. Quigley a debt of gratitude for his untiring, unselfish service.

I would also feel remiss if I did not point out to you the exceptional work done by our Subcommittee on Public Relations under the leadership of Dr. Bray. This committee was just getting its comprehensive Public Relations program well under way when they were thrust into a veritable inferno by having socialized medicine raise its ugly head with more venom than ever before. They met the challenge in stride and among their numerous accomplishments, the February session for briefing speakers on health insurance was something long to be remembered.

The drive for compulsory health insurance has naturally spotlighted our own pioneering program, the Medical-Surgical Plan of New Jersey. We all wish that this plan, created only six years ago by our State Society, now

had five or six times as many subscribers; but we should all remember that we have been individually parties to the sound conservative management that has brought the Medical-Surgical Plan through its infancy and childhood. The plan has reached maturity with a quarter million seasoned subscribers and there is universal agreement that a far more rapid expansion of its coverage of our population is not only required by the circumstances surrounding us, but also a safe and practical possibility. Let us put aside all thought of criticism or recrimination for the past and rally to the support of the Medical-Surgical Plan, which assuredly has a great future in our state.

The Medical Society of New Jersey, and each of us individually, has a right to be proud of this. It has been admirably managed by its Board of Directors, and most capably administered by Dr. Norman Scott. If it has not grown as fast as we would like it to have grown, the fault is at least partly within ourselves—and considering the result, I question whether the conservative development of this fine enterprise is anything for which we should censure ourselves. Let us all get together and push, to the end that Medical-Surgical Plan may soon become the major factor in medical economics within New Jersey that it was originally designed to be. We, as the parents of this program, have the main responsibility for its future.

It is with deep and sincere regret that we note the passing of Dr. Pollak and Dr. Fithian, during the past year. They had given long and faithful service to our organization.

It is to be hoped that by the end of the current year your President shall have personally visited each of the societies and carried his greetings to them.

In our contacts with the officers of the county societies, we have been gratified and impressed by their sincere devotion to the affairs of organized medicine. Most of the programs of the State Society depend for their effectiveness upon the interest and cooperation extended by officers of the county societies. In this respect there has been a tremendous improvement and a great growth of interest and achievement among the county society officers and committees during the last year. It would be impossible to acknowledge individually the unselfish contribution of the great number of individual physicians throughout our state to the welfare of our profession during the year, but a word of hearty thanks is extended to them all.

In the last few months the American Medical Association, has been challenged as never before. I know it has long been fashionable within our ranks to criticize the A.M.A. While no one denies the remarkable achievements of the A.M.A. in the field of medical science and education, we have all been rightly impatient at times at the failure of our national organization to put its best foot forward and to represent properly the high traditions and aspirations of our profession. Let us not forget that when we criticize the A.M.A. we are criticizing ourselves. In the long run our leadership will not be any better than what we make it. Those of us who have followed A.M.A. activities for some time are convinced that a new day has dawned. There is a new awareness in Chicago of the challenge of the time and the need of the hour.

Evidence of disunity among us plays into the hands of our enemies. What we need now is solidarity and unselfish support of our national leadership in the educational campaign they are undertaking in our name. Let's stop quibbling and harping at our national leaders, and give them the support they must have to do the job we know must be done for us.

May I respectfully offer the following suggestions:

1. Continuation of Public Health Week with improvements and changes as indicated from this past year's experience.
2. Continuation of the Fall Clinical Conference.
3. Expansion of our public relations program with sufficient personnel and budget to permit us to carry our message to every nook and corner of the state.

My sincere personal thanks are extended to Mr. Bryan, Mrs. Madden, the Headquarters personnel, the Officers, the Trustees, and the members of the Society for their patience, their friendly counsel, and their support.

TREASURER

George J. Young, M.D., Morristown

As the fiscal year does not close until May 31, 1949, the annual report cannot be submitted at this time. An interim report covering the accounts up to that time will be presented to the House of Delegates at the first session on April 26, 1949.

SECRETARY

EARL LEROY WOOD, M.D., Newark

The Secretary performed the duties of the office as prescribed. The following is the statistical report on the *Official List* of Members of The Medical Society of New Jersey, as of March 1, 1949:

Active members 1949	4,681
Associate members, 1949	165
Members Deceased, March 1948 - March 1949	52
Transfers, March 1948 - March 1949	
In, from other states	41
Out, to other states	22
Within state	27
	— 90
Resignations, March 1948 - March 1949	14
New members	233
Reinstated members	20
Delinquent members (members in 1948, not paid at time of Official List closing)	469

BOARD OF TRUSTEES

L. SAMUEL SICA, M.D., Chairman, Trenton

Six regular and two special meetings of the Board of Trustees have been held since last April. Abstracts of the actions taken by the Board have been published in THE JOURNAL for the information of the members, and copies of the minutes have been transmitted to county society secretaries for reference and report at county meetings.

MEDICAL SCHOOL

In response to the resolution of the 1948 House of Delegates proposing to the Governor the establishment of a commission to study the need for a medical school in New Jersey, Governor Driscoll informed your Board in November that he has "no hesitancy in approving the proposal for the establishment of such a survey committee . . . . with the specific understanding that the committee will include in its report a detailed analysis of the financial requirements for the support of any project proposed, and recommendations for adequate methods of meeting such requirements."

The Board appointed the following representatives of The Medical Society of New Jersey to the Commission: Dr. Irvin E. Deibert, Camden; Dr. Royal A. Schaaf, Newark; Dr. James F. Norton, Jersey City; and Dr. L. Samuel Sica, Trenton. In December, President Clothier of Rutgers University appointed the following representatives on the Commission: Dr. Robert A. Cooke, New York City; Harry L. Derby, New York City; Thurlow C. Nelson, Ph.D., Rutgers University, and William S. Borden, Trenton.

The Commission has not met nor begun its study yet as we have not had any further word from the Governor as to the appointment of the eight members he is to select from the public at large.

SPECIAL A.M.A. ASSESSMENT

Following the December meeting of the A.M.A. House of Delegates, your Board of Trustees recommended that a special assessment for educational purposes of $25. per capita be levied against each component society for its membership to meet the assessment levied by the A.M.A. In less than two months the twenty-one component societies in New Jersey officially reported their endorsement of this action, and county treasurers began the collecting and reporting of the assessment to the State Society.

MEDICAL-SURGICAL PLAN OF NEW JERSEY

In January a special committee of the Board attended a meeting of the Executive Committee of the Medical-Surgical Plan, at which time suggestions were made to alter the present contract to make its sale more expeditious.

A month later the Board met in special session with the Board of Trustees of Medical-Surgical Plan and representatives of the Hospital Service Plan. Following a full afternoon's discussion it was recommended that M.S.P. abandon their present subscription contract and adopt the policy approved by the 1948 House of Delegates of one contract with one limitation of $5,000. In accordance with this, the physicians' fee schedule and premium rate would be adjusted; the income level of $5,000 will provide full coverage with no discrimination as to hospital accommodations, and indemnity will be automatic above that.

The Board also recommended that M.S.P. make a study, survey or investigation concerning the enrollment of individuals, small groups and smaller percentage of subscribers in larger groups.

GRADUATE EDUCATION

Another lengthy meeting of the Board was held March 20, 1949, at which time the tentative report of the Finance and Budget Committee covering the budget for 1949-50 was studied. Several reports from special committees were also received. The Intern Training Committee presented the following resolutions which were approved by the Board:

I. *Whereas,* the requirement of the New Jersey State Board of Medical Examiners that an applicant for licensure complete a one-year rotating internship is no longer realistic and does not meet with the approval of the Association of American Medical Schools, and

Whereas, most hospitals now require either a straight internship in medicine, surgery, obstetrics and gynecology or pediatrics, or a one or two-year rotating internship,

Therefore, the Board of Trustees of The Medical Society of New Jersey respectfully requests that the New Jersey Board of Medical Examiners include in its requirements for licensure any one or two-year internship completed in a hospital approved for intern training by the American Medical Association.

II. *Whereas,* most hospitals in New Jersey are unable to procure the necessary interns, be it therefore

Resolved, that our delegates to the American Medical Association present the following resolution to the House of Delegates of the A.M.A.:

Whereas, most hospitals are unable to procure the necessary interns, and

Whereas, present trends in medical education are more concerned with the training of specialists than with the training of the general practitioner, be it

Resolved, that the American Medical Association appoint a committee consisting of five members of the House of Delegates, two of whom shall be general practitioners, to study the whole internship problem, and especially to study the advisability of recommending inauguration of a two-year rotating intern training program, covering the main branches of medicine, surgery, obstetrics and gynecology, and pediatrics, with standards of teaching acceptable to the American Medical Association and to the Association of American Medical Colleges as a pre-requisite for licensure in the various states.

The Board of Trustees approved three recommended amendments to the Constitution and By-Laws for presentation to the House of Delegates.

A special committee on the Implementation of the Emergency Education Program was named, consisting of the officers of the State Society, the chairman of the Board of Trustees and the chairman of the A.M.A. Delegates, with power to organize a program, define its authority and scope and consider anything else pertaining to the implementation of the emergency educational program.

SPECIAL COMMITTEES

MILITARY SERVICE

STEWART F. ALEXANDER, M.D., Chairman, Park Ridge

During the year the Special Committee on Military Service has been concerned with the growing deficit of professional medical personnel in the Armed Services. The original draft of the 1948 Selective Service Law contained a provision that would have enabled the President to draft doctors of medicine beyond the general age limit of 25. This section was deleted from the law, as finally adopted. The proposal had been strongly opposed by the American Medical Association on the ground that it was certainly discriminatory, probably unconstitutional, and surely unnecessary in view of the historical record of the medical profession in meeting (by voluntary enlistment) all requirements of the armed forces for medical personnel in the past.

Since the law became effective there has been a growing deficit in the number of medical officers available. The Army Medical Corps will face a serious deficit of medical officers by July 1949. The needs of the Navy and Air Force are more modest, but each of these services also will have a deficit. Approximately 10 per cent of the shortage exists in physicians qualified as specialists and capable of serving as chiefs of professional services in fixed hospital installations.

The gravity of a shortage of medical officers is lighted up by the fact that the Selective Service Act forbids the recruitment of personnel unless and until provision has been made to assure adequate medical care for them as members of the armed forces. Hence, according to statements made by Surgeon General Bliss of the Army, general enlistment might have to be drastically curtailed unless deficits in medical personnel are made up.

Activity has been present on the national level to improve the supply of medical officers

through unification and consolidation of the medical corps of the services and other federal agencies. This has been stressed by the committee, and real action should be sought in the future. Attention was also given to the fact that in either peace time or war time mobilization of medical manpower, adequate consideration must be devoted to deferment of individuals still in training as interns and residents, so that overall training will not be incomplete nor essential services be curtailed.

Recommendations to help solve the problem were prepared and presented to the Trustees and to the New Jersey delegation to the American Medical Association prior to their meeting in November 1948. The resolution proposed by the New Jersey delegates to the American Medical Association was eventually referred (without specific recommendations) to the Council on National Emergency Medical Services of the American Medical Association.

Your Committee has cooperated in the present program of enlistment through moral suasion and has asked the component county societies to assist in contacting young physicians in the indicated groups. Liaison has been established with the Military Manpower Committees and the Director of the State Department of Defense. Continuing efforts will be made to help effect a real solution in conformity with the desires of the physicians and without jeopardy to the interests of the nation as a whole.

EMERGENCY MEDICAL SERVICES

Andrew F. McBride, Jr., M.D., Chairman, Paterson

The Committee on Emergency Medical Services has participated with representatives of The Medical Society of New Jersey in meetings of a national and regional scope dealing with disaster and preparedness. The meeting of the Council on National Emergency Medical Service of the American Medical Association was held in Chicago in April, and was attended by Dr. Norman M. Scott. A meeting held at New York under the chairmanship of Dr. George Baehr was attended by your chairman. A regional meeting on disaster preparedness was held in Philadelphia on June 8. Representatives of the federal government, New York, New Jersey, Pennsylvania, Maryland, District of Columbia and Virginia were present. The Medical Society of New Jersey and this Committee were represented by Dr. Paul Mecray, Jr., and James E. Bryan, Executive Officer.

There were certain themes common to all of these meetings. Based upon present knowledge of newer technics of warfare the implications for the future required extensive revision of our plans in the event of a war. Chief among these is that civilian groups will bear the direct burden of offensive military action. Disaster areas will transcend municipal, county, state and even regional lines. Moreover the intensity and peculiarity of atomic warfare would not only render the object of attack almost impotent in the way of self-help, but extremely difficult of aid by others because of radiation effects and; in addition, because of the interdependency of our present complex civilization.

Certain broad conclusions have already become apparent which hold immediate concern for the physicians charged with the care of the health of the nation. The Office of Civil Defense Planning will require extensive authority and facilities. Another problem is integration of such a department with existing governmental divisions, such as municipal, county and state, since these boundaries may be transcended. This is important in explaining why more initiative has not been exercised since continual stress has been laid on the need for a uniform over-all plan worked out on higher levels and applied to the regional situations as these problems are solved. Finally, the relationship of civilian defense to national defense as a whole and in particular the relative medical needs of the armed forces and the civilian population has been given consideration as well as the liaison between these groups.

VETERANS LIAISON

Joseph F. Londrigan, M.D., Chairman, Hoboken

Your Committee reports progress on the Society's program for veterans care. We have not been called upon this year to any extent but assure the House of Delegates and members that we are alert to the problems that exist in our program and stand ready to carry out whatever instructions are presented to us for implementation.

JUDICIAL COUNCIL

FRANCIS C. WEBER, Newark; VINCENT P. BUTLER, Jersey City; BARCLAY S. FUHRMANN, Flemington; D. F. FEATHERSTON, Asbury Park; and CHESTER I. ULMER, Gibbstown.

No problems were presented for the consideration of the Councilors and no reports are therefore entered. The Councilor of the Fifth District however, submits the following memorandum to the House of Delegates:

There will be a district meeting in Woodbury on April 21, at 9:30 p. m., at the Country Club, sponsored by the Gloucester County Medical Society. Speaker will be F. F. Borzell, M.D., Speaker, House of Delegates, A.M.A. His subject will be "American Medicine Throws Down the Gauntlet". A good representation from the county societies in the district is expected.

The Councilor feels that a district meeting should be held every year rotating it in the different counties. They promote a spirit of fellowship among the members and tend to increase the solidarity of our state organization.

EXECUTIVE OFFICER

JAMES E. BRYAN, Trenton

In his first annual report to The Medical Society of New Jersey, submitted a year ago by your Executive Officer, the following observation was made:

"The Medical Society of New Jersey, it seems to me, is well equipped with policies and objectives. You have well defined attitudes and plans with respect to nearly every issue or problem confronting you. The job now is execution. The need is to make your proposals come true."

To accomplish this job of execution, it was suggested that a far more intimate and continuous relationship between the State Society and its component county medical societies is necessary. Having been born and raised, so to speak, in medical society work within county medical societies, your Executive Officer appreciates not only what such a working relationship can mean in the realization of state programs but also what it must mean in the invigoration of the county societies themselves.

To this end, with the cooperation of many of your officers and committee chairmen, the Executive Officer has devoted a considerable part of his energy during the past year.

On June 13, 1948, we had our first annual Public Relations conference of state and county Public Relations chairmen and officers. This meeting had two principal purposes: (1) to explain to the county society representatives our regular Public Relations Committee program; (2) to place before the county society officers practical suggestions for the carrying out, county by county, of the principal current public service projects of the State Society.

Following this conference, during the summer and early fall, we held a series of small group conferences with the principal officers of individual county societies. In all, there have been sixteen of these "private conferences" during the past eight months. Some of the results, chargeable at least in part to these conferences, are these: all but two county societies participated actively in Public Health Week; nearly every county society now has negotiated a satisfactory program for medical care for old age patients and for dependent children and family units; most counties are actively studying and seeking to improve arrangements for medical care for relief and families of low income; there has been an increase of nearly 100 per cent in the use of our weekly *Health Hints* service by the newspapers; most of the county societies have taken formal steps to assure the people of the availability of 'round-the-clock emergency medical service; practically every county society has staged one or more public meetings for cancer education; and many are taking steps to form county health councils following their recent practical experience in working with various other health groups in the community during Public Health Week.

All these things bespeak a growing recognition by our county societies of their public responsibilities and opportunities for leadership in health and medical affairs. In many communities throughout the state we have earned a degree of public prestige and appreciation such as has rarely been accorded organized medicine anywhere in America up to this time. Needless to say, these are assets that may prove

invaluable in our presently developing effort to persuade the people to retain the freedom and integrity of medical practice in the United States.

In addition to private group meetings and conferences with county society officers, your Executive Officer has made twenty formal visits to the county societies at their regular meetings in the past eight months. In every case he has been generously accorded a spot on the program to talk with the members present about current matters of mutual interest. Since December 1, 1948, most of these talks have been devoted to a discussion of national issues, the background and purposes of the A.M.A. assessment, and the urgent necessity of united universal effort on the part of every physician to turn back the threat of nationalized medicine.

In addition to the county society meetings and conferences mentioned above, a conception of the variety and extent of your Executive Officer's formal contacts both inside and outside the medical profession may be derived from the following brief statistical report:

31 meetings of state society and Woman's Auxiliary committees and groups.
29 meetings of other state-wide organizations.
22 conferences on special subjects with official state departments and outside state organizations.
7 meetings and conferences of the New Jersey Health Congress.
7 conferences with press and radio representatives.
4 formal addresses before lay groups.
2 participations in radio debates.
2 attendances at additional radio debates.
7 special visits to counties during Public Health Week.
7 A.M.A. national meetings and conferences and regional meetings.
5 school health councils and local councils of social agencies.
2 conferences with Governor Driscoll.
2 other national meetings.
1 address before an out-of-state medical society.
3 testimonial dinners.

Much of your Executive Officer's daily work is reflected in the reports of the various committees—particularly of the Public Relations Committee—and of the Board of Trustees. These activities will not be repeated here.

Since December 1, 1948, a major part of his time has been devoted to planning and developing our state program of education regarding health insurance. Your officers, and particularly the chairman of your Public Relations Committee, should be congratulated upon their insight and foresight in having accurately anticipated the broad outlines of the national program now being mobilized by the A.M.A. It is to be hoped that we in New Jersey will equip ourselves with the necessary tools and resources to play our full part in this national program for as long as it may take to "lay the ghost", once and for all, of federal health insurance in the United States. The job will require some additional working personnel, great gifts of time and energy on the part of all your officers, and—most important of all—a continuous dedicated missionary work on the part of every physician who wants to keep his profession free.

In concluding this report I want to pay tribute to the fine work of Mrs. Madden. Her management of our day-to-day affairs, her work as Convention Manager, and the cooperative and helpful way in which she has assisted me in my work during the year—all these things are sincerely appreciated. I also wish to pay tribute to all the members of our office staff, to Mrs. Armstrong, Mrs. Stockton, Mrs. Walsh, Miss Barry, Miss Edge, Miss Dileo and Mrs. Marshall. Everyone has shown great loyalty to the Society, a fine devotion to duty, and remarkable patience with the Executive Officer.

Finally may I express my gratitude to Dr. Hornberger, to the members of his administration, and to the officers and members of the county societies with whom I have had the privilege of working during the year, for many kindnesses and much encouragement.

We all have every right to be proud of The Medical Society of New Jersey, and your Executive Officer counts it a high privilege to have been of some small service to you in the year that is past.

ONE HUNDRED YEARS AGO

FROM A PAPER BY DR. O. H. TAYLOR, VICE-PRESIDENT, AT THE 1849 ANNUAL MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY: "But New Jersey has no medical school. No vested rights exist, as yet, in the hands of teachers. . . Here then, if anywhere, we might cherish the hope for the foundation of a medical school, in which requisites for graduation might be placed upon a proper basis; and where the diploma, rendered difficult of acquisition by the severity of the scientific tests alone, might become a legitimate certificate of unquestioned ability." (Page 487 of the 1849 *Transactions.)*

STANDING COMMITTEES

FINANCE AND BUDGET

DAVID B. ALLMAN, M.D., Chairman, Atlantic City

It is always impossible for the Committee on Finance and Budget to present a final report in time for publication in the April issue of the JOURNAL because of the fact that the fiscal year of The Medical Society of New Jersey does not end until May 31.

The Committee, however, has had several meetings and has reviewed the expenditures of the current year and compiled a tentative budget for 1949-50.

As everyone can well imagine, the proposed budget will show a considerable increase over that of any previous budget. This is readily understandable because of several factors, chief of which is the position in which American medicine finds itself today.

Because of these circumstances, the Public Relations Committee requests an increase in their budget; the Legislative Committee will require an increase, as well as the Public Health Committee, and many others. Because of the tremendous amount of extra work involved, there will be an increase in the expenses of our Executive Offices.

All of this adds up to the fact that in order to run our Society in an efficient manner for the coming year, the assessment of each member will of necessity be increased over that of the current year. This increase, however, will not be too great, and it will very definitely not be "out of line" with most of the other states. As a matter of fact, it will still remain "below the average". Your Finance and Budget Committee has been "working over-time", making every effort to curtail budgetary items insofar as is compatible with efficient functioning of the State Society.

It will be necessary for your Committee to have several meetings between the time of publication of this preliminary report and the submission of our final recommendations, which cannot be made until all estimates are properly evaluated. Therefore, our final budget cannot be submitted until the meeting of the House of Delegates in Atlantic City later this month.

PUBLICATION

HENRY C. BARKHORN, M.D., Chairman, Newark

Demands for JOURNAL space have increased at such an accelerated rate during the past two years that we have found it expedient to make some re-allotments of space. The Committee felt that it was important to increase the number of scientific articles, since we had been rejecting many good manuscripts because of lack of space. The JOURNAL is the most advantageous medium for New Jersey practitioners, and to open our pages to more scientific articles without increasing the total pages per issue was the problem which faced us at the beginning of the year. The Executive Officer's *News-Letter* provided a vehicle for some of the administrative activities, but the generally increased tempo of organizational work during the past year made it difficult to reduce space allotments in this department. The Committee instructed the editor to condense minutes of Trustee and Committee meetings, and to omit the purely pro-forma procedures. This was done, with excellent results. The scientific content and the book reviews were the chief beneficiaries of the space so saved. Thus, during the twelve-month period ending in March 1948, we published 58 scientific articles. During the corresponding period ending in March 1949, we published 88 original manuscripts—an appreciable increase.

The internal structure of the JOURNAL staff remains unchanged. The system formulated last year whereby Dr. Davidson continued as editor on a part-time basis and Mrs. Armstrong as assistant editor on a full-time basis has worked well, and should be continued.

The JOURNAL has been printed by the Orange Publishing Company for 37 years. This is something of a record in medical journalism. The publisher has recently moved to larger quarters and installed new equipment, so that we can be assured of a continuation of the fine typographic appearance which has so long been a feature of our JOURNAL. The long

and happy association between the Society and the Orange Publishing Company is evidenced by the continuity of these 37 years of reciprocally satisfactory relationships.

The years ahead will, of course, be critical ones for organized medicine, and there will be great need for a constantly well-informed membership. The filling of that need is one of the missions of the JOURNAL. It will continue to fulfill that function as well as its other duties—medical education, liaison between the officers and members of the Society, and interpretation of medical news. No changes in format, style, staff or content are recommended.

WOMAN'S AUXILIARY

WILLIAM E. DODD, M.D., Chairman, Beach Haven

This Committee is active as the liaison between The Medical Society of New Jersey and its Woman's Auxiliary. It has assisted the Auxiliary in putting into effect the ten point program proposed by Mrs. Walker, which was approved by the House of Delegates last April. This was presented in detail to the House of Delegates in the supplemental report of this committee last spring.

The most active field of the Auxiliary program this year has been the Rural Health Program carried out under the direction of their Public Relations Committee. On June 7, 1948, an all day "Rural Health Conference" was held in Trenton at which time excellent panel discussions were conducted.

Two radio broadcasts were given in connection with this program as well as two addresses by prominent speakers upon different phases of rural health.

The Woman's Auxiliary is putting into effect an educational program on rural health at the county level too. It is to be carried out by each county Auxiliary with the help of the state Public Relations Committee. It is particularly intended for counties with an essentially rural population. It consists of six prepared programs each of which includes an address, a motion picture film, and pamphlet reading material. It is made available to the public through clubs, granges, and rural gatherings, under the auspices of the Auxiliary of the county medical society.

In preparation of this program this Committee was called upon to review printed matter, posters, prepared talks, and motion picture films. We adopted a procedure of double review whereby all material was examined by members of this Committee and then referred to the advisory committee of the county medical society for final approval.

The role played by the Woman's Auxiliary in the school health program was completed with the organization of school Health Councils in the various counties. The Auxiliary claims no credit for the virtues of the program itself; nor should it be blamed for any of the program's imperfections. The Woman's Auxiliary was given the job of organizing the School Health Councils. When this was accomplished, it officially withdrew from the program.

It must be decided now whether the Auxiliary is to go further into the field of public service and to undertake greater problems; or whether it should return to its original role as a purely social organization. Perhaps somewhere between these poles lies the path of maximum efficiency for the Woman's Auxiliary.

The following proposals of this Committee were endorsed by the Trustees in January 1949:

1. That the chairman of the Board of Trustees be empowered to appoint a committee to draw up an amendment to the by-laws setting forth the duties of the Advisory Committee to the Woman's Auxiliary.

2. That any new activity of the Woman's Auxiliary pertaining to the policy and program of The Medical Society of New Jersey be sponsored by that committee of the medical society having jurisdiction over that activity. After approval of the Trustees, the activity should be financed within the limitations of the budget allotted to that committee.

3. That the following statement of policy be approved: "An important function of the Woman's Auxiliary is to act as hostess at the annual meeting of the State Society and to the Auxiliary of the American Medical Association whenever the latter meets in New Jersey; and that no other activities of the Auxiliary be permitted to detract from this function".

The Committee is deeply grateful to the Woman's Auxiliary for its untiring efforts in behalf of The Medical Society of New Jersey and congratulates it upon its accomplishments.

ANNUAL MEETING

HARROLD A. MURRAY, M.D., Chairman, Newark

Several meetings of the Committee have been held during the year in preparation for the 1949 Annual Meeting in Atlantic City. We regretted at first, that previous commitments prevented the meeting from being held at our usual hotel. However, we are happy to report that satisfactory arrangements have been made at the Ambassador Hotel and the prospects are bright for a very instructive and successful meeting this year.

The Scientific Program Committee under the leadership of Dr. Francis Clarke have arranged for 18 individual section meetings, four more than in 1948. The section officers are offering timely topics with outstanding speakers. The work of this committee has been outstanding.

The Exhibit Committee have arranged for 33 scientific exhibits. These have been selected with the utmost care by the very efficient Dr. Asher Yaguda and his committee.

Our Convention manager, Mrs. Edith L. Madden, whose thoroughness and capabilities we have recognized for many years (and without whom our Annual Meetings could not have been so successful) has arranged for 57 technical exhibits. Revenue from these commercial exhibits assures the financial success of the convention and enables us to support the scientific and educational exhibits, the section meetings, the printing, and provides all the other necessities which go to make up a successful Annual Meeting.

Our President, Dr. Hornberger, has arranged for one general session with our great friend Senator H. Alexander Smith and William A. Richardson, Editor of *Medical Economics,* speakers for that occasion.

There will be the usual Mennen Cocktail Party preceding the Dinner Dance and all indications point to the most successful Annual Meeting that the Society has had in many years.

Through the courtesy of White Laboratories, Inc., of Newark, a *Daily Bulletin* will be issued on Monday, Tuesday and Wednesday of the annual meeting. Dr. E. Harrison Nickman of Atlantic City accepted the arduous task of editing the *Bulletin.* This *Daily Bulletin* is something new to our meeting. We know you will find it informative and enjoyable. Thank you, Dr. Nickman and White Laboratories.

SCIENTIFIC PROGRAM

FRANCIS M. CLARKE, M.D., Chairman, New Brunswick

The report of this Committee appears in this JOURNAL in the form of the Scientific Program for the 183rd Annual Meeting. The subject matter and the list of principal speakers and discussors testify to the interest, enthusiasm and industry of the officers of the various sections. The program is one of which every member of the Society may be proud and the Committee regrets that limitations of time have made it impossible for them to avail themselves of the offer of participation by many other members of the Society.

FIFTY YEARS AGO

"Shall we use gloves to operate? I find gloves more useful to keep from getting infected myself. I use them when I work on septic cases. You lose no time. Take them out of an antiseptic material, put them on, and go ahead. Insist on your assistants wearing gloves, especially when operating in a hospital. . ." (From the Report of the Committee on Progress in Surgery, 1899 *Transactions of The Medical Society of New Jersey,* page 105.)

ONE HUNDRED YEARS AGO

REPORT FROM THE "WESTERN DISTRICT" IN 1849: "In regard to new discoveries and remedies of which, according to the by-laws, your committee is to obtain information, your reporter has only to say that the new remedies, ether and chloroform, about which we see so much in secular periodicals, are ones which in this district of New Jersey but few trials have been made." (Page 435 of the 1849 *Transactions of The Medical Society of New Jersey.)*

SUBCOMMITTEES

Due to limitations of time the following Subcommittee reports are being made directly to the House of Delegates and have not been considered by the Welfare Committee.

PUBLIC RELATIONS

William E. Bray, M.D., Chairman, Pemberton

At its organization meeting on May 23, 1948, your Public Relations Committee adopted the following definition of public relations to guide its activities: "Public relations is the management function which evaluates public attitudes, identifies the policies and procedures of an individual or an organization with the public interest, and executes a program of action to earn public understanding and acceptance".

Accordingly, the Committee has devoted much of its efforts to the job of translating the specific programs of The Medical Society of New Jersey which have clear public relations consequences, into action or realization at the level of the county medical society and the individual doctor.

Some of the programs that we have sought to convert into reality at the local level are "round the clock" emergency medical service, the cancer public education program, the promotion of "dignified" membership drives by county medical societies, the promotion of interest in better local health department units, the provision of improved and standardized plans for providing medical care for relief patients, old age patients, and the clients of the Division of Family and Child Welfare.

While most of these programs did not originate with the Public Relations Committee, their accomplishment obviously redounds to the public credit and prestige of The Medical Society. "Public Relations is Public Service".

HEALTH EDUCATION

One of the constitutional purposes of The Medical Society of New Jersey is "to educate the public in the prevention of disease and the preservation of health". In this realm, we have continued to prepare and distribute to all newspapers and industrial house organs in the state a weekly educational column entitled *Health Hints*. In March 1948 the previous practice of distributing these in the form of a mat, under sole sponsorship of the State Society, was discontinued. Thereafter and to this date, they have been distributed in mimeographed form under the joint sponsorship of the State and local county medical society. Many county societies have conferred with local editors and helped promote use of this educational service. The result is that 134 daily and weekly newspapers (or 62.6 per cent) are now using this service with varying degrees of regularity. This compares to 32 per cent usage registered in a survey made July 15, 1948; and 41 per cent as of September 15, 1948. The use of this service by the 60 industrial house organs, on the other hand, is very meager, and the Committee has decided to abandon the sending of this material to house organs except when publishers specifically request it.

A second health educational service is the furnishing of *Junior Health Hints* weekly during the school year to 1800 classroom teachers, health educators, school nurses, etc., who have requested this service. The Committee has received numerous spontaneous expressions of appreciation from many of those to whom the service is sent.

A third activity in public health education is the furnishing of 15 minute radio programs in transcribed platter form, to various radio stations throughout the state. The programs are furnished by the American Medical Association and the Committee has been greatly assisted by county representatives of the Woman's Auxiliary who have made arrangements for these broadcasts and assisted us in getting the platters to and from the stations.

Interest in these transcribed programs has notably diminished during the year with the result that, at present, less than half of the local stations are carrying these programs. Your Committee is investigating the possibility of joining in a cooperative relationship with a number of state societies which purchase from the Michigan State Medical Society a weekly series of six five-minute medical and health news programs transcribed ready for use with "open ends" enabling a local credit and signature to be appended.

A fourth activity in which the Public Relations Committee cooperated with the Public Health Committee was our first state-wide "Public Health Week" last November. Your Committee takes great satisfaction in the success of this enterprise, especially in the ten counties where public exhibits, forum programs, and motion picture shows were arranged. *Public Health Week produced a greater volume of newspaper publicity than any other activity of the State Society in recent memory.* In addition to the news items concerning Public Health Week that appeared in nearly every newspaper in the state, many daily newspapers carried the seventeen special health educational features prepared and circulated by the State Society during the three weeks preceding Public Health Week and during Public Health Week itself. More than 500,000 people were directly reached with health educational material through these newspaper releases, through attendance at exhibits and forums presented by the county societies, and through direct participation on their own part in Public Health Week activities in their communities. While Public Health Week is primarily a health educational venture, it is certainly also the most impressive Public Relations accomplishment of the Society in recent years.

SPEAKER'S BUREAU

During the year, your Committee surveyed opinions among the county societies as to the need of a Speaker's Bureau with the result that several county societies immediately organized a general Speaker's Bureau on health and medical topics. This movement had hardly gotten under way when the election of a national administration pledged to compulsory health insurance showed the immediate need for development of an Emergency Speaker's Bureau in connection with our national educational campaign against socialized medicine.

In December, therefore, your Committee requested each county society to designate members to accept assignment to our state-wide Emergency Speaker's Bureau.

The county societies responded with alacrity, and on February 20th the Committee staged the first of its training and briefing sessions for the Emergency Speaker's Bureau. One hundred and fifty-five members were present from twenty county societies and a full day's training session was presented under the guidance of Professor Richard C. Reager, Chairman of the Department of Speech and Debating at Rutgers University.

At the same time, your Committee prepared for each member of the Bureau a packet of source material including a mimeographed compendium of authentic data and statistics in support of the seven principal arguments against compulsory health insurance formulated by the Board of Trustees in December 1948. The great enthusiasm generated at this training session augers well for the future success of this service. A follow-up session will be held this spring when the members of the Emergency Speaker's Bureau will be reassembled for further training and study of their vital assignment.

QUARTERLY NEWS LETTERS

A valuable addition to our Public Relations program during the past year has been the publication every three months of *Quarterly News Letters.* These are sent to some three hundred key people who are officers or directors of various lay groups interested in health or medical care. In these *Quarterly News Letters* we have reported and interpreted current programs of the Society that need and deserve public support. Judging by the reactions of the recipients, these news letters have struck a responsive chord and have helped immeasurably to build up public recognition of The Medical Society of New Jersey as a potent constructive force in the community. This device has been singled out for special approbation by the A.M.A. In fact, two of these releases have been reprinted and distributed to all the other State Societies by the A.M.A. with the suggestion that they do likewise. The quarterly news letter for January 1949 comprised the full text of the Society's "Public Statement of Official Policy Regarding Compulsory Health Insurance", containing our seven principal objections to enactment of the Wagner-Murray-Dingell Bill.

MEMBERSHIP NEWS LETTERS

A major function of any Public Relations Committee is to alert and educate the doctors themselves as to the State Society's policies—particularly those programs that need the active participation of individual members. For this purpose, our monthly *Membership News Letter* has proved to be perhaps our most useful device. The reactions from members have been universally favorable and encouraging.

CONFERENCES WITH COUNTY SOCIETIES

Another major step in our effort to activate the county medical societies and, through them, to mobilize interest and support among individual members for the public service programs of The Medical Society of New Jersey, was the staging on June 13, 1948, of a conference of the public relations officers and chairmen

of the county and State societies. This meeting was attended by thirty people representing twelve county societies. The State Society introduced and discussed The Medical Society of New Jersey's approved programs that had been attractively and usefully compiled in what became known as our "Rainbow Folder".

Following this general conference on June 13 your Committee arranged individual conferences with groups of the chief officers of fifteen of the county societies.—Each conference was held within the county concerned. At these meetings, the problems of the individual county societies in attempting to carry out our major programs of public service were analyzed. Opportunity was taken to promote local interest in such other projects as Public Health Week, the promotion of the Medical-Surgical Plan, development of Speaker's Bureau services, etc. At many of these local conferences, we had the privilege of the company of our President, of Dr. Scott, and of Dr. S. William Kalb of Newark, chairman of the committee in charge of Public Health Week.

At the Public Relations Committee meeting in September a "score sheet" was studied indicating the progress made by the county societies on the various programs which had been discussed with them at the Public Relations conferences.

The Committee has sponsored a recommendation (approved by the Trustees) that two separate conferences be regularly held by The Medical Society of New Jersey: one in the spring with Public Relations committees of the county societies; the other in the fall with the presidents, secretaries and other officers of the county societies. It is intended that the Spring conference should launch the programs set up by the House of Delegates. The fall conference would follow up the first conference and provide an occasion for checking up on progress made during the summer months —a period in which your Committee feels that we can no longer afford to let Medical Society matters rest in "innocuous desuetude".

PUBLIC SERVICE PROGRAMS

The theme of our Public Relations conference last spring and of our year's work in general, has been "Public Relations is Public Service". In the spirit of the definition quoted above, we have sought to promote the programs of The Medical Society that would most clearly identify ourselves with the public interest and earn for us public understanding and acceptance.

In addition to Public Health Week, the projects pinpointed for action during the year were:

1. "Round the clock emergency service"—to assure that everyone in every community will have access to medical care when he needs it.
2. Health education for the public through promotion of the use of Health Hints, Junior Health Hints and A. M. A. radio programs.
3. Cancer educational program for physicians and the public.
4. Stimulation of interest in better local health department services—building acceptance and understanding of the need for state legislation to permit consolidated health districts.
5. Improvement of local programs for medical care of the indigent and near-indigent.
6. Promotion of a better uniform plan in each county to provide medical care for old age assistance clients.
7. Promotion of similar uniform plans for better medical care for dependent children and their families.
8. Membership campaigns in county societies.

None of these objectives has been attained 100 per cent, but all have been decidedly forwarded through your Committee's efforts and through the increasingly fine cooperation we have received from the officers of county societies.

RELATIONS WITH NEWSPAPERS

Apart from our regular weekly *Health Hint* release to all newspapers, your Committee issued twelve special releases in the six months period ending March 1, 1949. Seventeen additional state-wide news releases were sent out as feature stories in connection with Public Health Week.

Through our clipping bureau service, we maintain a careful check on the use of our news stories and on editorials commenting on our activities. The Medical Society of New Jersey owes a debt of gratitude both to the newspapers and to the radio stations in the state for the interest they have shown in reporting our activities and the enormous amount of invaluable space our releases have been accorded in most of these papers.

In this connection, your Committee has been considering a conference with newspaper and radio representatives to study the applicability in our state of a "Code of Cooperation" between newspapers, radio stations, hospitals, and physicians in the handling of medical news. Much discussion has taken place on this proposal. To reach all the editors concerned, it would be necessary to stage such a large meeting that we have decided to postpone a general state meeting of editors and physicians, etc. Instead, we recommend that all county societies (as several already have done) hold meetings with the newspaper and radio people within their own counties. Not only will such con-

ferences be small enough to allow for free discussion, but newspaper editors will, in general, be far more impressed with views and proposals put forth by their own neighbors in the medical profession than by remote representatives of the State Medical Society. Local conferences should be encouraged. A state conference, if necessary, can be held to work out general problems common to many of the county societies.

PUBLICATIONS

Your Committee has had under preparation for some time a pamphlet designed for distribution both to members and to the public, telling the story of the many ways in which The Medical Society of New Jersey contributes to the public health, welfare and happiness. However, as plans were maturing for this publication the present emergency broke upon us. This project was put on the shelf in order that we may devote our small budgeted funds for publications and pamphlets appropriate to our educational campaign against compulsory health insurance. Accordingly, since December, our efforts in this field have resulted in reprinting the Society's declaration of official policy on compulsory health insurance; reprinting a remarkable full page article on this subject written by a prominent lay citizen of Trenton; printing large quantities of "The Case Against Compulsory Health Insurance in a Nutshell"; mimeographing and distributing (among our Speaker's Bureau members and others) a special digest of source material on compulsory health insurance; and reprinting in various quantities other cartoons and statements on this subject.

Another accomplishment of your Committee was the printing and distribution of 25,000 copies of the "Policies of The Medical Society of New Jersey" last fall.

Your Committee has avoided duplication of efforts in the field of pamphleteering with the A.M.A. However, there are urgent opportunities for the use of special literature along this line relating strictly to our problem within New Jersey.

EMERGENCY EDUCATIONAL CAMPAIGN

On November 27, 1948, your Committee was represented in St. Louis at the first national A.M.A. Public Relations Conference. This meeting immediately preceded the session of the House of Delegates in which the A.M.A. assessment was adopted. This conference left no doubt in our minds of the extreme urgency of a national educational campaign properly integrated with the state societies and with a major part of the yeoman work to be done by the county societies and individual members. The conference also highlighted the immediate urgency of educating our own members and blasting them out of their time honored complacence and lethargy.

We take forgivable pride in the fact that we anticipated by exactly two months the general outline of the A.M.A. national program as subsequently revealed to representatives of the Society on February 12, 1949, in Chicago.

Specifically at our Committee meeting on December 12, 1948, we set forth a basic four-point program for Public Relations activity on the part of the State and county societies in counteracting compulsory health insurance as follows:

1. Immediate establishment and training of an Emergency Speaker's Bureau throughout the state.
2. The widest possible dissemination of literature relating to the principal objections to compulsory health insurance in the public interest.
3. The rapid encouragement and expansion of the Medical-Surgical Plan of New Jersey.
4. The active solicitation of resolutions of endorsement of our position by all other state-wide agencies interested in health and welfare.

Our accomplishments concerning the *Emergency Speaker's Bureau* have been mentioned above.

Our *pamphleteering* effort has been in low gear awaiting more precise information from A.M.A. so that duplication of effort may be avoided.

Our recommendation concerning *stimulation of the Medical-Surgical Plan* has eventuated in conferences between the Board of Trustees of the Medical Society and the Board of Directors of the Medical-Surgical Plan which have produced agreement on changes in the policy and enrollment procedures that should make this plan more readily saleable in the immediate future.

On the solicitation of support from other organizations, considerable progress has been made. Conferences have been held with representatives of such widely divergent groups as the New Jersey State C. I. O. Council, the New Jersey Manufacturers Association, the New Jersey Farm Bureau Federation, the New Jersey Chamber of Commerce, and various allied professional groups. Our point of view on socialized medicine is being brought aggressively and, we hope, persuasively to the attention of every major civic, professional, industrial and commercial organization having any *bona fide* interest in this subject.

The emergency educational program, if it

is to be satisfactorily carried forward in New Jersey, will require the active support of every agency of the Medical Society. This is far bigger than a Public Relations project. It should call into its service every committee and board of the society—and every individual member. It will need not only plenty of energy and devotion, but the use of considerable funds. These funds, in our opinion, should be under the direct supervision of a special Coordinating Committee of the Society which should have broad authority and flexibility of action comparable to that exercised on the national level by the A.M.A.'s Coordinating Committee in charge of the national program.

Your Committee has translated these thoughts into a formal recommendation to the Welfare Committee and Board of Trustees which will be presented to these groups.

For the present, your Committee contents itself with the assurance that it will cooperate in every possible way with whatever agency may ultimately be set up to operate this major educational effort. We feel, however, that normal Public Relations activities must not be neglected but should be carried on even more actively than before.

Your Committee takes this opportunity to recognize the able assistance given them by the Executive Officer, Mr. James E. Bryan. His efforts in the development and coordination of the Public Relations Program have made it a success. We do not feel that he is able to carry unassisted the extra burden directed to the Emergency Educational Committee. Assistance in the person of a field worker and possibly some extra office personnel will be necessary to accomplish the desired results in our new educational program. This we feel is essential for success.

During December 1948, January and February 1949, your Committee conducted a concentrated campaign of education of the members of The Medical Society of New Jersey regarding the A.M.A.'s assessment. Special bulletins were released to the county societies, news letters were devoted to the subject, and special visitations were made by the President and the Executive Officer to nearly all of the county medical societies for the purpose of explaining the background of the assessment and the urgency of united action by Medical Society members in support of it.

These efforts have paid off. To date, twenty of the twenty-one county medical societies have reported favorable action on the assessment and in only two cases was there any recorded dissent in the balloting by the county society members. In both these instances, however, endorsement of the A.M.A. assessment and of the State Society's action in support of it was recorded by overwhelming majorities.

In concluding this report, we record our appreciation of the activity of the Woman's Auxiliary in its Rural Health educational program and in assisting the Public Relations Committee in many other ways. We trust that the full potential usefulness of the Auxiliary may be realized in the emergency educational program concerning voluntary and Compulsory Health Insurance where their help is so badly needed.

Everyone has been a part time Public Relations man this year. In the year to come—this role will have to be emphasized more than ever.

The Public Relations Committee wishes to express appreciation to all Committees of the Society who have so ably cooperated to make our Committee's work a success. The Legislative and the Public Health Week Committees have done a tremendous amount to help us meet our slogan, "Public Relations is Public Service".

The fine cooperation of our consultants has been most helpful—and the cooperation of all members has been gratifying.

With such fine assistance—the work of the Public Relations Committee should go forward satisfactorily.

FIFTY YEARS AGO

"A neurosis may be either functional or organic. It is functional when the morbid condition is not dependent upon gross structural changes, and organic when a material basis for the neurosis exists." (From a paper read at the 1899 Annual Meeting of The Medical Society of New Jersey; page 137 of the *Transactions.)*

18th CENTURY MEDICINE IN NEW JERSEY

"The question discussed was: What is the cause of an intermittent fever. The majority of the Board was in favor of debility as the cause."—From the minutes of The Medical Society of New Jersey, meeting at Princeton, November 7, 1786. (Page 52 of the *Transactions.)*

LEGISLATION

C. Byron Blaisdell, M.D., Chairman, Long Branch

The work of the Committee throughout the year has been directed toward protecting and forwarding the interests of The Medical Society of New Jersey and its component county societies. This has been done by a careful screening of the significant legislation introduced, both at state and national level. In this screening, the policies of our Society have been closely followed, requiring frequent reference by us and by the Executive Secretary, Dr. Frederic J. Quigley, to proceedings of our House of Delegates minutes of the several committees, the Welfare Committee, the Board of Trustees and the special committee headed by Dr. Sigurd W. Johnsen.

Interim activity of the Committee between meetings has been steadily maintained by following the procedure established in past years, through conferences, (telephonic, written or personal) between the Executive Secretary, the President or Past-President of the Society, and the Chairman. This is a satisfactory working arrangement, easily susceptible to changes in policy and the direction of the House of Delegates.

We have advocated "a dynamic state program designed to meet the challenges implicit in compulsory sickness insurance proposals, in our opinion, should also include:

"1. State legislation to ensure adequate functioning health departments.

"2. Measures to make Medical-Surgical Plan available to *all* groups of self-supporting individuals.

"3. Adaptation of the City of Newark Plan to all communities of the state for the care of the indigent and medically indigent."

As this report is written the Legislature is about to reconvene after a brief recess. Thus far, the number of bills of public health interest and medical import introduced is below the average of recent years; and no definite action has yet been taken on any of these measures. They are being followed closely.

In the Congress a large number of public health measures were introduced in the first six weeks of this session but there has been a noticeable slackening-off in the past two weeks.

The only national bill of medical importance that has been reported out of Committee is H.R. 782, which would convert the Federal Security Agency into a Welfare Department with cabinet status. Health education, and social security, under the provisions of this bill would be scrambled into a Welfare Department in such manner as the Secretary may determine. The Secretary, under the terms of the measure, would, in substance, become dictator of the public health activities of the federal government.

Your Committee was represented, in opposition to this bill, at a hearing before the House Committee on Expenditures in the Executive Department, February 15th. The measure is now in the House Committee on Rules. We are informed that it is likely to remain there until the report on federal health activities by the Hoover Commission has been evaluated.

Because of these legislative circumstances, this Committee will make a "Supplementary Report", as fully amplified and summarized as possible, for the purposes of the House of Delegates.

PUBLIC HEALTH

Samuel Blaugrund, M.D., Chairman, Trenton

The Public Health Committee during the past three years has operated on the thesis that everything pertaining to the public health of our citizens is the direct responsibility of the medical profession. This perspective has led to the accomplishment of concrete, constructive programs. The inauguration of "Public Health Week" in 1947 exemplifies this spirit of cooperation among interested groups and is a direct example of the leadership and responsibility that The Medical Society of New Jersey has assumed in presenting to the citizens public health programs that should be met and solved.

Under the chairmanship of Dr. S. William Kalb, "Public Health Week" in 1948 was another outstanding accomplishment in which, for the first time, a large number of the component medical societies cooperated and actually presented a constructive community service. It is to be hoped that this procedure will be an annual event for the presentation of fac-

tual knowledge to the community at large.

During the past year, in cooperation with the State Department of Education, and spearheaded by the Woman's Auxiliary to The Medical Society of New Jersey, the four-point school health program, nationally referred to as "The New Jersey Plan", was implemented in many counties throughout the state. Again it is my pleasure to compliment the Woman's Auxiliary for their untiring efforts and enthusiasm in bringing this school health program into successful operation.

Standards for the newborn nursery and the premature baby were presented to the hospitals throughout New Jersey and we sincerely hope that the hospitals will cooperate and conform to these minimum standards.

Orchids are due to Dr. Jerome Kaufman and the members of his Committee for organizing the New Jersey Heart Association. This again exemplifies the modus operandi by which The Medical Society of New Jersey (through its responsible subcommittees) assumes leadership and responsibility in a problem that has tremendous public health appeal.

The rural health program is in the process of organization and study and in the near future specific recommendations will be made to meet this very important problem. I take pride and express deep appreciation to my Advisory Committee chairmen and their members for the numerous advances and accomplishments in the field of Public Health in the State of New Jersey during the year.

This report summarizes a vast amount of study and a great many conferences, and recommendations that have been approved by the Welfare Committee and Board of Trustees of The Medical Society of New Jersey. However, all of this work is of no avail unless it can be successfully carried out on a local level by the component medical societies. I am sorry to report that this is an important "bottleneck" in the transmission of these programs from a state level to a county level.

We recommend that the Welfare Committee and Trustees study the problem of obtaining the cooperation of the component medical societies in carrying out the recommendations of the Public Health Committee.

MEDICAL PRACTICE

HERSCHEL S. MURPHY, M.D., Chairman, Roselle

The philosophy of the Committee has been to protect the interests of the public and of all the physicians of our state rather than to advance the interests of any one group. The general practitioner is essential to the practice of medicine and his rights and privileges must be protected.

We have continued to be interested in working for the approval of life insurance companies for a standard fee of $10 for all regular life insurance examinations, regardless of the amount of insurance applied for. We have also been working for a doubling of the fees for all other examinations and life insurance reports.

We are opposed to having physicians, voluntarily or otherwise, be required to contribute a fee for each hospital admission to help the hospital financially. We disapprove of physicians being taxed a flat fee to help meet such a deficit. The proper approach is for physicians, like all other citizens, to contribute voluntarily to the support of the hospital as he sees fit, without pressure from the institution.

We wish again to call attention to the "Standards to Decrease Neo-natal Mortality" and to the recommendation that the general rules for the conduct of the newborn nursery should be made by the attending pediatricians, attending obstetricians and medical board. All premature infants should be under supervision of a recognized pediatrician or pediatric service within twenty-four hours after delivery. These regulations will help preserve the rights of the general practitioner in regard to his newborn premature patients.

We call attention to the need of having the general hospitals in New Jersey set up departments of general practice. This will enable good general practitioners to become attendings in general practice and have a voice in hospital administration without being specialists.

Among the high lights of the year, is the work of the Advisory Committee on Laboratory Medicine in trying to get cooperation between the funeral directors and physicians in regard to autopsies.

The Committee on Hospital Relationships has worked for the development of a joint committee to be appointed each year for the

improvement of the care of the patient. This committee is to be composed of an equal number of representatives from The Medical Society of New Jersey, the New Jersey Hospital Association and the New Jersey Nurses Association.

The Committee on the Medical Care of the Indigent has recommended that each county medical society make a study of all publicly supported medical services in each community and that each county society work diligently to persuade each community to provide medical services to relief patients by a free choice, fee-for-service plan; also to fulfill its responsibility in providing hospital and medical care for medically indigent citizens.

The Advisory Committees have done their work well and we refer you to their reports for the detailed story of their activities.

We recommend:

1. That we again ask through our delegates to the American Medical Association that doubling life insurance examination fees be given further consideration.

2. That the superintendents and chiefs of the medical staffs of all general hospitals in the state be notified of our objection to the taxing of physicians under any guise to help meet the deficit of voluntary hospitals.

3. That the physicians in charge of both the obstetrical and pediatric departments of the hospitals be notified of the neo-natal standards.

4. That general hospitals of New Jersey be urged to set up departments of general practice.

PUBLIC HEALTH

ADVISORY COMMITTEES

Due to limitations of time the following Advisory Committee reports are being made directly to the House of Delegates and have not been considered by the parent subcommittee.

CANCER CONTROL

William O. Wuester, M.D., Chairman, Hillside

Great strides were made during the past year in setting up a cancer control program in New Jersey that will give a true picture of the work being done by the physicians and laymen of the state in the campaign to aid cancer victims. The educational program now being carried on by the American Cancer Society, New Jersey Division, Inc., urging that residents of the state have periodic checks made by family physicians, is having its effect. In addition steps have been taken to correlate and analyze records with the result that it will be possible within a short time to check the progress made in the treatment of cancer patients.

During the year, the fourth step of the cancer control program of the division (which has been approved by the Board of Trustees, The Medical Society of New Jersey) was put into effect. This step, known as Part IV of the cancer control program, visualizes a more equitable distribution of cancer society funds for work actually done in the diagnosis, care and follow-up of cancer clinic patients.

In connection with the operation of this program, a field representative has been added to the staff of the cancer society. His principal assignment will be field supervision of activities under the plan. The program provides for basic grants of $520 to the hospitals of the state having cancer clinics. These grants are to cover the cost of clinical and clerical overhead. So far, 27 institutions are receiving these grants, an increase of 14 since last September, which was the start of the cancer society's fiscal year.

Evidence of the growth of the work of the Advisory Committee is seen in the decision to

increase the number of members on the committee to include representatives of counties not now having membership. Dr. James S. Gallo, of Paterson, was added to the main committee. The new advisory members are as follows:

Drs. Harold S. Davidson, Thomas J. Summey, Sherman Garrison, J. H. Underwood, B. S. Fuhrmann, J. M. Schildkraut, M. F. Urbanski, Harold A. Kazmann, Charles E. Woodman, William E. Dodd, Lee C. Hummel, L. C. Fritts, William H. Varney and George W. Brooks.

The medical profession continued its close cooperation with the cancer control program. A resurvey of physicians who have agreed to continue this phase of the program by conducting complete physical examinations in their own offices has been most gratifying. Many requests for specimen forms to be used in conducting these examinations have been received and the forms distributed by the service office of the New Jersey Division of the society. Citations for their participation are being forwarded to all listed physicians.

The biopsy program providing tissue diagnostic service was extended during the years to include the dentists of the state. They are being reached through the New Jersey Dental Society.

More than a thousand physicians have received Volumes I and II of the New Jersey Cancer Bulletins. Many favorable comments have been received. This is a cooperative effort of the Advisory Committee on Cancer Control, The Medical Society of New Jersey, and the New Jersey Division of the American Cancer Society.

A leaflet "How Can I Get a Health Maintenance Examination" was distributed during the year by the cancer society. It urges frequent medical examinations and cites the contacts where those desiring might obtain a list of cooperating physicians.

In the fund-raising campaign of last April, $697,291 was contributed by residents of the state. Of this amount 40 per cent ($278,996) was forwarded by the New Jersey Division to the national office for research and other activities and $284,357 was allocated to the county chapters. The balance was used for the state education and service programs.

Before funds are granted by the cancer society for medical projects, the latter must be approved by the Cancer Control Committee. In the twelve months medical expenditures amounting to $172,208.31 were given approval. The requests covered equipment for clinics; special medications for cancer patients; basic grants under Part IV and other medical or nursing expenses. The allotment by counties follows:

Atlantic	$ 5,173.14	Mercer	$ 9,100.00
Bergen	40,603.82	Middlesex	3,262.36
Burlington	6,519.15	Monmouth	12,803.00
Camden	4,487.15	Morris	6,992.83
Cumberland	3,060.00	Ocean	3,018.78
Essex	38,747.70	Somerset	5,200.00
Gloucester	2,020.00	Sussex	5,300.00
Hudson	12,736.00	Union	13,926.20
Hunterdon	3,561.00	Warren	1,870.00

CARDIO-VASCULAR DISEASES

JEROME G. KAUFMAN, M.D., Chairman, Newark

Based on the recommendations of this Committee a state heart association has been organized. The organization has followed the principles and rules of The Medical Society and this Committee will be the advisory group to the state heart association. As the heart association progresses so will the work of this Committee crystallize and develop, so that adequate facilities for the study, care and prevention of heart disease will be made available to the residents of this state.

During the past year several heart clinics have been organized and approved. There has been more interest in heart disease both in the medical profession and the laity.

I am glad to report the progress made and feel certain that we will make even greater strides in the future.

CHILD HEALTH

Stanley Nichols, M.D., Chairman, Long Branch

Through the continued efforts of the Woman's Auxiliary, the Better School Health Program is making steady progress. The Subcommittee on Newborn, working with Dr. MacKenzie's Maternal Welfare Committee, and the Bureau of Maternal and Child Health of the State Health Department, guided by Dr. Julius Levy, are making steady progress in the matter of improving newborn and premature care in New Jersey's hospitals. Establishment of the New Jersey Heart Association and its state-wide attack on all cardiovascular diseases is of major importance in the control of Rheumatic Heart Disease.

The untimely death of Dr. Henry A. Cotton, Jr., slowed down the mental hygiene program development for children, but new plans are underway for the coming year. This is also part of the school health program.

The challenge of the proponents of compulsory health insurance has resulted in dramatic developments at national, state, and county levels for improved medical care for low income families, with particular reference to children. The following resolution, presented by our Child Health Committee was approved by the Public Health Committee, the Welfare Committee, and the Board of Trustees:

"That The Medical Society of New Jersey at this critical time, forthwith expand our present Medical Service Administration, Medical-Surgical Plan, etc., into a constructive state-wide plan for better medical care for all low income families in New Jersey, with particular reference to the needs of children, through joint action by its officers, Board of Trustees, Welfare Committees, Medical Service Plans, and component county societies, and that such plan, based on the experience gained in the Newark Plan, the Baltimore City Plan, the Maryland State Plan for low income families, and similar efforts, shall be expanded in conference and collaboration with the governor of the state, the state legislature, and allied health professions, the State Department of Health, Institutions and Agencies, and other state-wide official and non-official agencies interested in the urgent problem of providing good medical care for *low income families,* with particular reference to the needs of *children."* Extensive and constructive plans are now being carried out at state and county levels, which will meet this need.

In addition to these major steps, the Child Health Committee and the American Academy of Pediatrics (New Jersey Section), are aiding the Woman's Auxiliary in providing speakers on Pre-School Child Health to rural districts.

Aid has also been given to the safety campaign of the National Safety Council in their present national drive for better safety measures for children.

The Committee has cooperated with the program of graduate pediatric education of general practitioners, as inaugurated by the American Academy of Pediatrics.

Through the Child Health Committee, the problem of the advisory committees to the National Foundation of Infantile Paralysis at county and local levels was referred to the existing State Advisory Committee on Poliomyelitis. The Advisory Committee on Child Health recommended that the county society Poliomyelitis Advisory Committees contain as a minimum one pediatrician, one orthopedist, one neurologist and one internist to be selected by the county medical societies.

The Committee offers thanks for the wholehearted assistance of the many agencies and members of state and county society committees that have helped us contribute this year of real progress as part of The Medical Society of New Jersey's contribution to the health needs of New Jersey's children.

CRIPPLED CHILDREN

H. Eugene Reading, M.D., Chairman, Paterson

The Crippled Children Committee has not had any meetings during the past fiscal year. However, several matters pertaining to our mission have been communicated to the members of the Committee by telephone and through the mail. We are now studying several topics to be presented shortly for discussion or approval to the Subcommittee on Public Health.

MATERNAL WELFARE

Robert A. MacKenzie, M.D., Chairman, Asbury Park

Toward the goal of skillful and conscientious obstetrical practice in every part of our state, this Committee reports steady progress. Fresh interest and impetus can be attributed to the functioning of the New Jersey Obstetrical and Gynecological Society which, in its second year, now numbers more than two hundred Fellows.

Our Committee on Maternal Welfare had a well attended meeting last September at which policies and plans were discussed at length. Since the trend away from home deliveries continues (more than ninety per cent of births in New Jersey are in institutions) there is great responsibility upon the medical profession to insure the safety to the patient which the public associate with the word hospital.

Mothers are not infrequently cared for without the protection of procedures and consultation rules long promulgated by this committee. Efforts to restrain unwise interference by attending doctors and to provide competent assistance in complicated cases will continue through maternal welfare activities in county societies. A new approach to the old problem was discussed and resolutions prepared to the end that adequate facilities for the care of obstetrical emergencies and of prematurely born infants should not be lacking. It was proposed that the State Licensing Board for Hospitals approve for the care of maternity cases only those institutions which:

1. Record and furnish annual reports of deliveries and results.
2. Maintain a blood-bank or make other arrangement for prompt transfusion in case of need.
3. Provide adequate equipment for the care of premature infants or practice safe transfer of these special charges to another hospital so equipped.

These recommendations were adopted by the Public Health Committee, endorsed by the Welfare Committee and approved by the Board of Trustees.

Actively and for the most part efficiently at work are the twenty-one field physicians who keep in touch with conditions in their districts, investigate maternal deaths, and stimulate interest in maternal welfare in various ways. As in previous years the field physicians held a joint meeting with this Committee in December. Each doctor had opportunity to discuss his problems and many suggestions of value were made. The meeting of the Section on Obstetrics and Gynecology in the Academy on the evening of the same day was in our Committee's hands. A symposium on causes of maternal death was presented and lively discussion followed the several case reports. This program was something of an innovation and its success brought assurance that next winter we would again be asked to "take over" a meeting. We are grateful to Dr. Daversa, chairman of the Section.

This Committee wishes again to remark on the assistance and encouragement of the Division of Maternal and Child Health of our reorganized State Department of Health. Invaluable statistical data have been compiled. This is available to any county medical society. We especially recommend that fetal loss be studied by obstetricians and pediatricians together. Comparative results in hospitals of similar status are sometimes significant.

The rate of maternal mortality for 1948 in New Jersey was .98 per 1000. The level of irreducible disaster is near. Only carelessness can prevent its attainment.

MENTAL HYGIENE

Harrison F. English, M.D., Chairman, Trenton

The untimely death of Henry A. Cotton, Jr., last June deprived the Committee of its chairman, and we functioned without a chairman until the fall when Dr. English was named to that position.

On April 27, 1948, a section on nervous and mental diseases was included in the program of the Annual Meeting of The Medical Society of New Jersey. This was the first time in the long history of our Society that we have had a section on neuropsychiatry, and our Advisory Committee on Mental Hygiene, is properly to be credited with organizing and programming this pioneer section. All credit for this properly goes to the late Dr. Cotton.

On January 12, 1949, the chairman of this

Advisory Committee met with Commissioner Bates and the medical directors of the New Jersey State Hospitals and a member of the Attorney General's staff to discuss revision of the existing commitment form. The Department of Institutions and Agencies had previously agreed, (as a result of the recommendation of this Committee) to delete the word "insane" from the voluntary admission form of the state hospitals. The Department also agreed to discontinue the use of the words "parole" and "escape" in reference to patients committed to state hospitals. Although a revision of the existing commitment form has not been agreed upon, the Department expressed a willingness to make any changes that the medical profession recommends, in so far as it is legally feasible to do so.

Senate Bill No. 354 providing for the care of alcoholics was discussed and recommendations were made concerning it, which were embodied in a letter to the Subcommittee on Legislation. The bill is felt by this Committee to be a definite step forward but probably will prove to be inadequate to meet the problem. At present, this is being studied by the members of our Committee, with the thought that the Committee may be of service in an advisory capacity in the implementation of the law in cooperation with the Commissioner of Health.

The Advisory Committee on Mental Hygiene had previously approved legislation to license the practice of psychology to prevent quackery and charlatanism by unqualified psychologists. Dr. Lewis Loeser, Dr. Theodore Robie and myself, all members of the Advisory Committee on Mental Hygiene and of the New Jersey Neuropsychiatric Association, met with our Legislative Subcommittee to review the problem. We heard testimony offered by representatives of the New Jersey Psychological Association, and then agreed to support such a bill in principle, but believed that the bill, as recommended by the New Jersey Psychological Association, was inadequate. The Advisory Committee on Mental Hygiene was represented at a meeting of the Subcommittee on Legislation to advocate the need of such a bill.

The Committee has studied a law in the District of Columbia, dealing with the disposition and treatment of sexual psychopaths. The New Jersey Sociological Association had unanimously approved the enactment of a comparable bill by the New Jersey Legislature. The Advisory Committee on Mental Hygiene believes that such a bill will be necessary, but that the particular legislation under study was not an adequate means of dealing with the problem.

At the time of the preparation of this report, the Committee has under study the question of the need for a law to enable general hospitals to restrain disturbed patients for a limited period. This problem was presented to the Committee for consideration by the Chairman of the Council on Government Relations of the New Jersey Hospital Association.

The Officers of the Neuropsychiatric Section of The Medical Society of New Jersey, who are also members of the Advisory Committee on Mental Hygiene, have arranged, with the aid of the entire Committee, the scientific program for the Neuropsychiatric Section at the coming meeting of the State Medical Society.

The Committee continued its efforts to encourage the establishment of neuropsychiatric departments in general hospitals by speaking on behalf of this subject to the staffs of general hospitals whenever the opportunity prevailed.

RURAL HEALTH

Ralph M. L. Buchanan, M.D., Chairman, Phillipsburg

This has been a banner year for interest in rural health. There was a special rural health meeting in Trenton in June, a rural health program during Public Health Week throughout the state in November and a national conference on rural health in Chicago in February. As your chairman, I attended the Chicago sessions and heard intensive, intelligent and helpful discussions on all phases of rural health. At one session, laymen—mostly farmers and other rural residents—came and spoke frankly of the problems of rural health as the consumer of health services sees them. I was impressed with the adequacy of rural health service in New Jersey after hearing of the problem in other states. One physician in South Dakota had to cover by himself a county equal in size to our own Warren County in New Jersey—a circuit that covered sixty miles one way to see one family! One great value of this

Chicago conference was the inspiration it gave to rural physicians; another the better relations it fostered between rural laymen and their doctors. The publicity department of the American Medical Association handled the publicity on this in grand style, with newspaper releases and national network radio broadcasts.

The state rural health conference in Trenton last June was well handled—for which thanks are due to the Woman's Auxiliary in general and to Mrs. Yaguda in particular. This was well summarized in the article on page 599 of our state medical JOURNAL (December 1948 issue) so it need not be detailed again here. The Medical Society should, by all means, encourage the Auxiliary in this long-term rural health project.

SCHOOL HEALTH

WILLIAM V. CARROLL, M.D., Chairman, Trenton

The Advisory Committee on School Health devoted its attention during the year to the furtherance of the school health program.

We have cooperated with the Woman's Auxiliary in furnishing information and aid to a number of county societies in which local school health councils were not established until this year.

As a result of a special meeting, the state school health council has been reconstituted under the name of the New Jersey State Council for the Improvement of School Health Services and is now actively functioning under the able chairmanship of Dr. Grace M. Kahrs. This Council contains five representatives of The Medical Society of New Jersey, one of whom is its chairman, and two representatives of the Woman's Auxiliary to the State Society. In addition there are twelve representatives of organizations and agencies interested in school health.

Much credit is due to the Woman's Auxiliary for their organizing work during the past two years which has resulted in establishment of county school health councils in sixteen counties. We hope, through the agencies of the State Council, to assist these county groups in making our basic plan effective in all parts of the state.

TROPICAL DISEASES

CHRISTIAN P. SEGARD, M.D., Chairman, Leonia

During the year there have been no problems referred to this Committee. Considerable literature on tropical diseases has been reviewed and abstracts of these will be reported in the JOURNAL of The Medical Society of New Jersey from time to time.

TUBERCULOSIS

ABRAHAM E. JAFFIN, M.D., Chairman, Jersey City

Although tuberculosis as a cause of death has dropped from the number 1 spot in 1900 to 7th place in 1946, it still remains at the head of the list of deaths from contagious diseases. The disease is still far from being under control. To meet this challenge the Committee has discussed various ways of furthering its control. We emphasize particularly:

1. The importance of early and repeated chest x-ray and sputum examinations in all suspicious cases.

2. The need of x-raying the chests of all diabetic patients every six months and all pneumonia cases promptly after recovery.

3. Participation by every county in Public Health Week last fall was desirable and we arranged with the New Jersey Tuberculosis League for an ex-

hibit in each county. In many of the counties the suggestion that x-ray units be made available was also carried out.

4. We approved a resolution introduced by Dr. Marcus Newcomb to abolish the "means test" and hope the State Society will endorse this action.

5. We believe that general hospitals should provide facilities to qualified chest physicians for the admission of private patients who refuse to go to a sanatorium for initial pneumothoraces or pneumolyses.

6. We reiterate our stand in favor of preliminary tuberculin testing in school surveys before x-raying for economic and epidemiologic reasons.

7. We have planned with the State Health Department through Mr. MacDonald for a better follow-up of survey findings.

8. We are studying a pamphlet on rehabilitation received from Dr. Silk.

9. We renew our former recommendation that all hospital admissions be x-rayed.

10. We will study the pending "isolation bill" before making any recommendation.

There are still many more problems for future consideration such as the use of streptomycin, BCG, etc.

Last June the medical profession in general, and those of us especially interested in tuberculosis, suffered a great loss in the death of one of the pioneers in our field, Berthold S. Pollak. Appropriate resolutions were prepared by our Executive Officer to his memory.

Your chairman has had the honor and privilege of serving in this office with many capable and cooperative members for a number of years. He takes pleasure, however, in saying that the current membership has been more representative and interested than ever. They brought to our meetings a wealth of experience coupled with ripe judgment, which I feel enabled this Committee to discharge its function with a measure of success.

We have also enjoyed the cooperation of the State Health Department through its representatives Dr. A. Joseph Hughes and Mr. MacDonald.

Finally, I wish to express my appreciation for the many valuable ways in which Dr. William Doppler, Executive Director of the New Jersey Tuberculosis League, has aided the committee.

MEDICAL PRACTICE ADVISORY COMMITTEES

Due to limitations of time the following Advisory Committee reports are being made directly to the House of Delegates and have not been considered by the parent subcommittee.

ANESTHESIOLOGY

Leo J. Fitzpatrick, M.D., Chairman, West Englewood

The Advisory Committee on Anesthesiology has considered the following problems during the past year:

1. The insistence of some institutions in maintaining or entering into the private practice of medicine, making a profit on the individual anesthesiologist. This is to be condemned. This exploitation of the physician anesthesiologist will lead to a deterioration in the practice of anesthesiology.

2. The administration of anesthetics is the practice of medicine. The supervision and direct administration of anesthetics should be in the hands of a physician.

The Advisory Committee on Anesthesiology suggests the following remedies:

1. That the director and chief of the surgical service of each institution in New Jersey be notified that the private practice of medicine by institutions is condemned by the American Medical Association and The Medical Society of New Jersey.

2. That the general practitioner of medicine be encouraged to devote part of his time to the administration of anesthetics. The anesthesiologists of New Jersey have a program of training in the methods of administration of the newer agents which they will gladly impart to interested physicians. There are competent anesthesiologists in all parts of the state so that no loss of time away from the student's general practice will be necessary.

The members of the Advisory Committee on Anesthesiology appreciate the honor awarded them by appointment to this Committee. We applaud the added interest in anesthesiology that has been noticed in the past year.

CONTRACT PRACTICE

Andrew C. Ruoff, M.D., Chairman, Union City

This Committee functions only at the call of the President of the Society, or at the request of the chairman of the Subcommittee on Medical Practice. Function of the Committee is largely that of looking into complaints affecting contractual relationships entered into by physicians. With the rising tide of agitation for medical practice by groups, agencies and government bodies, it is probable that the activities of this Committee will become more important. Your Chairman has attended the meetings of the Subcommittee on Medical Practice and has participated in the deliberations of that body.

HOSPITAL RELATIONSHIPS

Herbert M. Wortman, M.D., Chairman, Upper Montclair

The Advisory Committee on Hospital Relationships held a meeting to lay the groundwork for better understanding and closer cooperation between The Medical Society of New Jersey and the New Jersey Hospital Association. The organizational structure of the two organizations was presented and as a result a better understanding was had by those in attendance of the two organizations. Your chairman, as president of the New Jersey Hospital Association, suggested that a "Joint Committee for the Improvement of the Care of the Patient" be established consisting of five each, appointed by The Medical Society of New Jersey, the New Jersey State Nurses' Association and the New Jersey Hospital Association for the purpose of considering and serving as a clearing house for matters and problems of interest and concern to the three organizations. Such a committee, sponsored by the American Hospital Association, has been in operation on a national level, and has proved its worth. This recommendation was approved by the Trustees of The Medical Society of New Jersey. On March 8, 1949, the New Jersey State Nurses' Association approved of participation.

Four of the five representatives appointed by The Medical Society of New Jersey have been named, and now that the participation of all three organizations is assured, representatives from the New Jersey Hospital Association will be appointed, and the representatives to be appointed by the New Jersey Nurses' Association will be named at an early date. Once the 15 members have been named, a meeting will be called for the purpose of designating officers, and to discuss the objectives, aims and purpose of the committee. This is as much as can be accomplished by this committee during the current fiscal year. If this much is accomplished, the Joint Committee should become active during the 1949-1950 fiscal year.

RECOMMENDATIONS

1. The Joint Committee for the Improvement of the Care of the Patient which will have been formed this year, to begin its activity, operation and functioning during the year to follow.

2. Representatives of this Joint Committee by The Medical Society of New Jersey as well as the New Jersey State Nurses' Association and the New Jersey Hospital Association should be carefully selected, almost "hand picked", in consideration of the objectives, purposes and program of the committee.

INDUSTRIAL HEALTH AND HYGIENE

J. Mallory Carlisle, M.D., Chairman, Westfield

The Committee on Industrial Health and Hygiene has continued its cooperation with organizations composed of practitioners of industrial medicine and with the Industrial Hygiene Section of the Division of Adult and Industrial Health of the New Jersey State Department of Health. These efforts have been directed, as in the past, towards improvement of standards of industrial hygiene and improvement of health conditions in the individual industries, to furtherance of education in the field of industrial medicine and to elevation of the standards of practice in that specialty.

In the past it has been the usual practice for health programs in industry to be instituted on a minimum basis with gradual enlargement of scope and adequacy, and improvement in quality of care depending on the initiative and interests of the individual physician. This has frequently required an intensive program of education of industrial management and at times of organized labor to which the physician may have been too busy or for other reasons unable to devote the necessary effort. To rectify this very obvious weak point in our industrial health program, it has been deemed advisable to draw up a set of standards which, if followed, will ensure a superior type of medical care for the industrial worker. Formulation of these standards has been one of the primary interests of the American Academy of Occupational Medicine and it has been the privilege of the Chairman of your Advisory Committee on Industrial Health and Hygiene to participate in this work.

It is felt that by wide publication of these standards the physician new to industrial medicine may be guided in the fulfillment of his obligation to the worker and to industry. At the same time the availability of a written code may be an aid to him in impressing on management and labor the nature and importance of the necessary program. With this in mind, therefore, we present a summary of the standards of professional qualifications, performance and facilities which have been set up by the American Academy of Occupational Medicine.

The New Jersey Association of Industrial Physicians has been fully cognizant of the importance of high standards of professional performance and facilities and that on a statewide scale it has made a very effective effort in this direction. This is supplemented in more general terms and on a wider scale by the standards of the American Academy of Occupational Medicine.

STANDARDS OF PROFESSIONAL QUALIFICATIONS, PERFORMANCE AND FACILITIES

The position of physicians in an industrial organization should be commensurate with the importance of their duties. The authority of a plant physician (or the senior plant physician if there be more than one) should be derived directly from the chief executive officer of the plant. The physician should

1. Be consulted in all matters of policy and procedure relating to the health and safety of industrial personnel.

2. Take part in planning of plant facilities relating to health and safety of industrial personnel.

3. Have free access to all available information on environmental conditions in all work areas.

4. Conduct the following examinations:

(a) Preplacement
(b) Periodic
(c) Special
(d) Transfer
(e) Separation
(f) Return to duty

5. Maintain adequate, comprehensive, and confidential medical records.

6. Treat occupational diseases and injuries in conformance with the best professional standards of medical service and the requirements of state compensation laws.

7. Obtain the services of fully qualified consultants in the specialty fields whenever required.

8. Promptly refer to the family physician non-occupational illnesses occurring during working hours, furnishing the family physician with the diagnosis if known, as well as all pertinent information and findings.

9. Visit and evaluate plant operations with sufficient frequency to be able to correlate all hazardous conditions with clinical findings.

10. Inspect sanitary and hygienic conditions, including those related to the handling and preparation of food for employees.

11. Recommend measures for maintenance and improvement of general health of employees and prevention of occupational diseases and injuries.

12. Exercise authority over the medical department personnel within the organization.

13. Maintain ethical professional relationships with outside physicians and health agencies.

14. Keep management informed of important industrial medical problems.

15. Inaugurate and maintain a continuous program of employee health education.

Facilities:

A. These facilities must be on the premises and immediately available:

1. Reception room
2. Examining rooms with strict privacy
3. Adequate treatment facilities
4. Emergency wards and rest rooms
5. Facilities for keeping confidential records
6. Library facilities

B. These facilties must be available but not necessarily on the premises:

1. X-ray apparatus, clinical laboratory, electrocardiograph, basal metabolism apparatus.
2. Industrial hygiene and toxicologic laboratory.
3. Equipment for the application of the therapeutic modalities of physical medicine.

C. Medical Staff Requirements:

The Academy recognizes that the health hazards and the measures necessary for the prevention of occupational injury and disease differ in various industries. The number of physicians needed by a given industrial organization, therefore, depends on:

(a) The time required to conduct medical examinations on a schedule which insures early detection of any illness due to health hazards;

(b) the time required for therapeutic procedures;

(c) the time required to maintain complete familiarity with plant operations through regularly scheduled visits of inspection;

(d) the time required for sanitary inspections and for planning and conducting health education programs;

(e) the time required to maintain and study records, make reports, and carry out other necessary duties, such as, for example, advising other departments and management on matters relating to health and related subjects, taking necessary action in cases of industrial compensation, etc.

2. Adequate nursing staff to cover all shifts.

3. Medical technologists. If x-ray equipment is available on the plant premises, an experienced technician must be available to operate it.

4. Clerical staff is needed to maintain adequate records, provide satisfactory library service, and carry on necessary correspondence.

The Chairman of your Advisory Committee on Industrial Health and Hygiene represented The Medical Society of New Jersey at the Ninth Annual Congress on Industrial Health sponsored by the American Medical Association and the U. S. Public Health Service held in January 1949 in Chicago. The entire Congress paid profound respect to Dr. Carl M. Peterson, Secretary of the Council, for the splendid program which was developed as a planning conference to try to anticipate in what directions industrial medicine will move in the coming years, how it can become more effective as a force in community medical-health activities, and how the industrial physician can fit into the broad development picture of health and medical planning. Upon publication of the *Proceedings,* it will become apparent that the recommendations emerging from the Congress will constitute guideposts in the future development of industrial health activity.

RECOMMENDATIONS

That The Medical Society of New Jersey approve the *Standards of Professional Qualifications, Performance and Facilities* for the general practitioners in industry as set forth in this report.

LABORATORY MEDICINE

FRANK W. KONZELMANN, M.D., Chairman, Absecon

On September 19, 1948, your Committee reported that it wished to undertake three projects:

1. To iron out the difficulties between funeral directors and pathologists. Your Committee met with representatives of the New Jersey Funeral Directors Association, discussed their common problems and agreed upon certain recommendations, a copy of which (when finally approved) will be sent to every pathologist and funeral director in New Jersey. Chief source of irritation was delay in completing autopsies, making it hard for the embalmer to perform his task. There was also delay in the completion of the death certificate. This project has been successfully completed so far as the Committee's work is concerned. It remains now to induce hospitals to make every effort to avoid delay and in this way cease to interfere with the embalmer's performance of his duties.

2. The second project was an effort to change the Medical Practice Act to prevent the establishment of additional lay laboratories devoted to diagnostic clinical pathology in this state. A bill has been prepared. This is S-94. It will provide for the limitation of diagnostic laboratory methods to licensed physicians or those working under the direct supervision of licensed physicians. This is now out of the

hands of this Committee and its passage depends much on the influence we can bring to bear on the Legislature.

3. The third project of this Committee was clarification of the law on pre-marital blood testing and pre-marital examination for syphilis. It was the opinion of some members of this Committee that clinicians generally were not performing complete physical examinations. The act is vague and there is no provision requiring a genital examination of applicants for marriage certificates; the prime intention of the act was to afford an opportunity for a serologic survey and an opportunity for education of the layman by the physician in the matter of syphilis and the matter of its dissemination. It is the thought of your Committee that further consideration should be given to clarifying the act, for the purpose of the act and its provisions still seem extremely vague and more than ever require clarification. Whether this should be a task of this Committee or some other committee of The Medical Society or of the Department of Health is not at the present time apparent. This Committee would appreciate instruction in this matter. This completes review of the projects undertaken for the year 1948-1949.

MEDICAL CARE OF THE INDIGENT

Harold C. Cox, M.D., Chairman, Hightstown

On November 14, the Committee met with the Director of Old Age Assistance to interpret the six point program previously subscribed to by the State Society and the State Division of Old Age Assistance. In each instance a satisfactory understanding was reached. Uniformity will minimize any dissatisfaction that might be felt between various counties; yet sufficient elasticity is present to provide for unusual cases.

The second consideration of the Committee was to provide a blueprint for the medical care of the indigent and low income group.

This plan provides that (in cooperation with The Medical Society of New Jersey) each county society study existing methods of rendering medical care for the indigent and medically indigent. Purpose of this study would be to determine what action is necessary to make certain, ultimately, that all such patients, in every community in New Jersey, will be provided adequate, high quality medical care through the physician of the patient's choice; and that all physicians serving these patients will be remunerated on a fee-for-service basis.

Importance of taking these steps immediately is obvious. The medical societies throughout the state should put their houses in order before the welfare problem reaches large proportions through eventual deflation and unemployment.

For the purpose of this report, the following definitions should be recognized:

1. The indigent (or relief clients) are those persons whose names appear in the welfare rolls of the communities.

2. The medically indigent (or low income group) are persons who are otherwise self supporting but unable from their own income to provide themselves with adequate medical care.

3. Medical indigency should be determined at a local level by the government agency paying for the medical care.

The Advisory Committee on Medical Care of the Indigent, proposes that The Medical Society of New Jersey recommend to each county medical society that it:

(1) Make an immediate study of all publicly supported medical services in every community in its county to determine:

a. Which communities provide medical service to "relief clients" and to the "medically indigent" through the physicians of the patient's choice and on a fee-for-service basis.

b. Which communities, provide medical service to "relief clients" and/or to the "medically indigent", through a salaried physician or physicians serving the municipality on a contract or appointment basis.

c. Which communities are paying hospital bills for "medically indigent" patients in addition to regular "relief clients".

(2) That each county medical society make every effort to persuade every community to provide medical service to relief patients by the free choice, fee-for-service plan.

(3) That each county society do everything possible to persuade every community to fulfill its responsibility in providing hospital and medical care for medically indigent citizens.

(4) That each county society appoint an appropriate committee to carry out this survey and plan of action and to represent the county society in all matters of welfare medical service as well as to serve in an advisory relationship to the welfare authorities throughout the county in the administration of these programs.

NURSING AND NURSING EDUCATION

H. Wesley Jack, M.D., Chairman, Camden

Our chief work has been in assisting in an advisory capacity to the New Jersey State Board of Licensure for Nurses—especially with regard to the administration of the act for the licensure of practical nurses.

There has been formed a State Advisory Committee on Practical Nurses, representing the New Jersey State Department of Education, the New Jersey Nursing Association, the New Jersey Hospital Association, the various county vocational schools, and The Medical Society. This committee meets monthly. It is doing splendid work ironing out many difficulties in the actual operation of the law licensing practical nurses. In this way it is making it possible for the public of New Jersey to have greater nursing care and nursing care of a higher standard. Two of the members of the Nursing Committee have been serving on this committee.

A bill is being introduced in the State Legislature to extend the period of licensure for practical nurses by waiver beyond April 1, 1949, and also to give those who have been taking courses unapproved by the State Board of Licensure for Nurses time to pursue further study in approved schools for practical nursing. We believe that progress is being made to supply the citizenry of New Jersey with more adequate nursing care.

Changes in our present curriculum of study for registered nurses, especially with regard to length of time of study to do bedside nursing, has also come under discussion.

PHARMACEUTICAL PROBLEMS

Chester I. Ulmer, M.D., Chairman, Gibbstown

One meeting of the Committee was held during the year. It was a joint conference with the Committee on Professional Relations of the State Pharmaceutical Association. Every member of the Committee on Pharmaceutical Problems was present. Cordial and cooperative relations continue between the pharmaceutical and medical professions in our State.

Reports indicate that the *New Jersey Formulary* is being widely used throughout the state. A new edition is being planned.

PHYSICAL MEDICINE

Bror S. Troedsson, M.D., Chairman, Orange

This Committee had four meetings during the year, discussing problems relating to physical medicine. During the war, physical medicine made many advances in matters of application of treatment, convalescent training, rehabilitation, occupational therapy and recreational therapy. To further this newly gained knowledge, as well as the old, the New Jersey Society of Physical Medicine was formed and has been active with monthly meetings during the year.

Physical Medicine is now recognized as a specialty, has its own Board, and its diplomates. Many physicians in our state are attempting to meet the requirements to be recognized as diplomates. With these men available there will no longer be any excuse for placing hospital departments of physical medicine in charge of physicians untrained in their field or in the charge of technicians with insufficient medical training for the work and responsibilities involved. The Committee again asks for the active support of the members of The Medical Society of New Jersey in this endeavor.

RADIOLOGY

W. James Marquis, M.D., Chairman, East Orange

Last year in its annual report, the Committee recommended that a study be made of the financial relationship between the Blue Cross Plan and the hospitals in regard to the remuneration that should be given the radiologist. In many instances it was found that, due to the increased costs of hospitalization, the amount paid by the Blue Cross to the hospital was insufficient to allow any remuneration for the medical services rendered the patient by the roentgenologist, pathologist or physical therapist. Some members of the Committee, in talking with hospital administrators and members of the board of directors of the hospital plan, were able to point out this fact and as of January 1, 1949, there has been a more liberal allowance by the New Jersey Blue Cross Plan to the hospitals. This should be sufficient to allow for payment of medical services rendered in the hospitals by physicians rendering the above services and for hospitalization.

Some means of more direct representation to the board of directors of the Blue Cross Plan from the Medical Practice Committee should be set up to discuss such matters.

At the meeting of the Advisory Committee on Radiology in November, it was suggested that the Medical Practice Committee give serious consideration to the possibility of meeting with a committee of the New Jersey Hospital Association to discuss the problem of medical practice by hospitals.

The Advisory Committee also suggested that the Secretary of The Medical Society of New Jersey communicate with the insurance companies doing business in New Jersey, informing them that roentgenologists in this state have never endorsed any schedule of fees for liability or compensation cases.

The following recommendations have been made by the Advisory Committee on Radiology:

1. That direct liaison be instituted between the Blue Cross Plan and representatives of radiology, laboratory medicine, physical medicine and anesthesiology.
2. That insurance companies be notified that the roentgenologists in New Jersey do not have a formal fee schedule.
3. That a committee from the Medical Practice Committee meet with a representative committee of the New Jersey Hospital Association to discuss the problem of practice of medicine by hospitals.

WORKMEN'S COMPENSATION

William K. Harryman, M.D., Chairman, Hackensack

During the past year the Committee reviewed several bills introduced into the legislature, some of them aimed at making radical changes in the Workmen's Compensation Law. We made what we felt, were fair recommendations on these various bills.

Your chairman was active on the Workmen's Compensation Advisory Committee of the Department of Labor, meeting monthly. Dr. Greifinger served on this with me. We were able to accomplish quite a bit during the year in helping to facilitate the handling of compensation cases through the usual Workmen's Compensation Court.

Dr. Greifinger and myself as both representatives of The Medical Society of New Jersey and the Advisory Committee as previously stated have been working with the New Jersey State Chamber of Commerce to improve even further the Workmen's Compensation Law of New Jersey. This work will probably continue through the coming year.

FIFTY YEARS AGO

From the 1899 report of the committee on progress in bacteriology: "Recent research has shown that the bacillus of tuberculosis is probably not a bacillus but rather a fungus. . . The cause of cancer, according to a number of investigators, has been shown to be a blastomyces. . . Against diphtheria we now have an antitoxin so potent that 1/700 of a cubic centimeter will immunize a guinea pig. . ." (Page 93 of 1899 *Transactions.)*

COOPERATING AGENCIES

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY

NORMAN M. SCOTT, M.D., Medical Director, Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY

During 1948 the activities of Medical Service Administration were concentrated on the City of Newark Medical Care Plan.

This Plan, designed to meet the needs of the indigent and medically indigent of the City of Newark, a reimbursement plan rather than an insurance plan, provides payment on a fee for service basis for services rendered by physicians of the patient's choice for care of eligible persons confined to their homes by illnesses.

The Plan continues to be a successful demonstration of the cooperation of an official health agency with a voluntary agency controlled by the medical profession in solving the problem of medical care of the indigent and medically indigent. It continues to arouse nation-wide interest as a pioneer effort to solve this problem within the framework and approved principles of organized medicine.

The following table depicts the experience of the Plan over a five year period, showing actual costs and reflecting the changing economic picture. In interpreting this table we remind you that the indigent are those whose names appear on the welfare rolls of Newark and that the medically indigent are those who, in the opinion of the social service bureau of the City Department of Health do not have sufficient income to pay for adequate medical care. As presented below the figures pertaining to the medically indigent load consist only of those medically indigent persons classified as medically indigent when requesting medical services, hence their costs are depicted on a cost per case basis rather than on a per capita basis.

Medical care of the indigent and medically indigent under a project like the City of Newark Plan meets with the hearty approval of patients, physicians and governmental agencies. The standard of medical care is higher and the costs to the government are less than under other systems. The greatest financial saving is due to the fact that under such a Plan many people are cared for at home and a smaller number of people are hospitalized.

INDIGENT (RELIEF) PERSONS	1944	1945	1946*	1947	1948
Mean number of persons on welfare rolls during year	2082	1719	2155	2995	4274
Value of Approved Services	$2,243.00	$2,607.00	$4,971.00	$7,823.00	$8,589.00
Cost per capita of					
Relief Load—per year	1.07	1.51	2.30	2.61	2.00
Relief Load—per month	0.089	0.126	0.191	0.217	0.167
MEDICALLY INDIGENT CASES†					
Number of *Cases* during year	435	1575	2950	2734	3283
Value of Approved Services	$1,260.00	$3,659.00	$9,556.50	$10,633.50	$12,775.50
Cost per *Case* per year	2.89	2.32	3.23	3.89	3.89
Cost per *Case* per month	0.240	0.193	0.269	0.324	0.324

MEDICAL-SURGICAL PLAN OF NEW JERSEY

1. Experience; Calendar Years 1947 and 1948.

	Earned Subscription Income	Claims Incurred	Claims Incurred % of Income	Operating Cost: % of Income	Persons Enrolled at End of Period
Year Ending December 31, 1947	$ 947,945.57	$ 681,922.85	72.	17.1	143,700
Year Ending December 31, 1948	1,524,814.76	1,203,651.50	79.	15.	236,604

2. A supplementary report to the House of Delegates will be presented at the Annual Meeting, April 26, 1949.

* In April 1946 fees payable physicians were increased from $2. per day visit and $3. per night call to $3. per day visit and $5. per night visit.

† The word "case" means family as distinguished from "persons" referred to under report on Indigent.

NEW JERSEY HEALTH CONGRESS

Stanley Nichols, M.D., President, Long Branch

The November election led to a resurgence of legislative efforts by those who mistakenly believe that federal control of practice would provide good quality medical care. Because of this, the constitutional purpose of the New Jersey Health Congress became immediately the most important subject for action by every member of The Medical Society of New Jersey.

The constitutional purpose reads as follows: "The purpose of the Congress shall be the interchange of ideas and joint conference studies of the quality, quantity, availability, and distribution of health services rendered by the allied health professions (specifically—medical, dental, nursing, pharmaceutical, hospital), with constructive recommendations to participating agencies, to the end that good quality health services shall be available to all the people in New Jersey."

The New Jersey Health Congress was brought into being two years ago by The Medical Society of New Jersey and has been engaged (aided by our Public Relations Committee) in creating working conference relationship with the state organizations interested in health, particularly those who render health services, those who receive health services, and the New Jersey governmental agencies officially concerned with health services.

In view of the national emergency crisis facing our five professions rendering medical and allied services, it became necessary to step up the understanding by all New Jersey citizens of what good quality professional health services are, and what constructive plans are operating to make such services available to all persons in New Jersey.

As a first step, the president of the Congress appointed a strong committee to revise the constitution of the Congress for the purpose of increasing the organization membership and scope of activity of the Congress. This Committee will recommend that every statewide organization in New Jersey with a health activity (numbering upward of one hundred) be invited to participate in all future conferences of the Congress. This will increase the coverage of the Congress from thirty-two important state organizations to a complete state coverage and furnish the allied professions with an educational forum which can, if effectively used, reach every organization interested in health in the state of New Jersey.

The following resolution was introduced by the president of the Congress, as chairman of the Child Health Committee, at its meeting on December 12, 1948:

"That The Medical Society of New Jersey at this critical time, forthwith expand our present Medical Service Administration, Medical-Service Plan, etc., into a constructive statewide plan for better medical care for all low income families in New Jersey, with particular reference to the needs of children, through joint action by its officers, Board of Trustees, Welfare Committees, Medical Service Plans and component county societies, and that such plan, based on the experience gained in the Newark Plan, the Baltimore City Plan, the Maryland State Plan for low income families, and similar efforts, shall be expanded in conference and collaboration with the governor of the state, the state legislature, the allied health professions, the State Department of Health, Institutions and Agencies, and other state-wide official and non-official agencies interested in the urgent problem of providing good medical care for low income families, with particular reference to the needs of children."

This resolution was approved in principle by the Board of Trustees, and referred to the New Jersey Health Congress, the Advisory Committee on Medical Care of the Indigent, and other appropriate committees for constructive action. At this same time, the Chairman of the Subcommittee on Medical Practice, presented a report of the program of his Advisory Committee on Medical Care of the Indigent for good care for the low income group and recommendations to county medical societies which cover this ground completely at a county level. It is vital that each county society carry out these recommendations because only by such real action can the communities be convinced that organized medicine is providing care for low income families. Every member of The Medical Society of New Jersey must clearly understand two things. First, that it has become apparent to all thinking persons that for each 99 sincere idealists who have been persuaded to campaign for federal control, through taxation and subsidy, of health, medical care, education, and other fields, there is one person directly trained and controlled by a foreign power to infiltrate our fields of labor, farming, education, welfare, health and medical care, and gradually bring about a collectivist state using medical care as the most potent entering wedge. Remember, too, that the

Federal Security Administration and some selfish political leaders, seeking for power, are in the forefront of this movement. The two major farm organizations have come out against federal compulsory health insurance, but organized labor still seems to believe that political care could become good quality medical service. Second, remember that the medical, dental, nursing, pharmaceutical, hospital, and allied professions are on record as being convinced that good health professional services for all can be provided in accordance with American democratic principles by having (1) the high income families secure such services as at present, (2) the middle income families by increasingly available voluntary health insurances, and (3) the low income families by constructive cooperation between the health professions and governmental agencies using tax funds at federal, state, and local levels.

Success in our effort as to low income families depends on the whole-hearted participation by every member of our Society in the efforts of his county medical society to solve this problem at county and community levels.

Each county society should take the initiative in setting up a health council, with three definite objectives:—(1) better public health and professional health services available to all persons in the county, (2) better school health services, and (3) better rural health medical services.

Monmouth County has recently set up one of the first Public Health Councils in the United States and has included these objectives. This county council has been joined by practically all of the county organizations and professions who have a health activity. Any other society interested in the constitution setup and activities of the Monmouth County Public Health Council can secure information by writing the Secretary of the Council, at 131 Pearl Street, Red Bank.

Under the leadership of Mrs. Yaguda, the state-wide Better School Health Program and Better Rural Health Program and other similar fine activities are making splendid progress this year.

We offer the thanks of the New Jersey Health Congress to all who participated in its first two years of activities. We bespeak wider support and participation during the coming year from all members of our medical and allied professions and other agencies interested in health, and offer the following recommendation for adoption.

RECOMMENDATION

That each component county society of The Medical Society of New Jersey have a public Health committee, which will take the initiative in setting up a county public health council with three definite objectives:—(1) better public health and professional health services available to all persons in the county, (2) better school health services, and (3) better rural health medical services.

STATE BOARD OF MEDICAL EXAMINERS OF NEW JERSEY

E. S. HALLINGER, M.D., Secretary, Trenton

During the calendar year 1948, the Board examined 131 applicants for a license to practice medicine and surgery. Seven were graduates of osteopathic colleges. The Board also examined eighteen applicants for a license to practice chiropody, fifteen of whom passed the examination.

Results of the medical examination this year are displayed in Table One. All candidates were full citizens of the United States.

Licenses were issued to 247 physicians who had passed the examinations in another state or who had been certified by the National Board of Medical Examiners, and whose credentials indicated that they met the requirements for examination in New Jersey. Of these 247, all but nine were graduates of U. S. or Canadian medical schools.

TABLE ONE. MEDICAL EXAMINATIONS

Candidates	*Passed*	*Failed*	*Proportion Passed*
115 Graduates of U. S. medical schools	85	28	74%
11 Graduates of foreign medical schools	2	9	18%
7 Graduates of U. S. osteopathic schools	3	4	43%

The Board does not know whether the number of licentiates in New Jersey is increasing or decreasing. This is because the law does not provide for annual registration of physicians. We do know how many licentiates were lost

through revocation of license, and we know (see Table Two) how many were endorsed to other states; and so far as they are reported to us, we do have some figures on the numbers of deaths. These figures are exhibited in Table Two.

TABLE TWO

	Physicians	*Osteopaths*	*Chiropractors*	*Midwives*
Endorsed to other states	88	4	0	0
Deaths reported	80	3	2	0
Licenses revoked	1	0	0	0
Suspended or suspension pending	1	0	1	1

Annual registration would give the Board accurate information relative to the number of physicians practicing in New Jersey and would enable the licensed physicians to assist the Board in enforcing the law by reporting unlicensed physicians in their vicinity.

The laws governing the practice of chiropody and midwifery provide for an annual registration and our records show that the same number of chiropodists registered on November 1, 1948, as on November 1, 1947, and a decrease of sixteen midwives for the same period.

ENFORCEMENT

Following is a brief report of the Board's activities in enforcing the laws which they administer:

VIOLATION OF MEDICAL, ETC., LAWS (74)

50 Convicted, pleaded guilty or settled
23 Pending in the courts
1 Case dismissed

UNITED STATES DISTRICT COURT (2)

2 Motions to dismiss complaint for declaratory judgment granted

HEARINGS BEFORE BOARD (6)

1 Medical—Licenses revoked
1 Medical—Revocation or suspension pending
1 Chiropody—Revocation or suspension pending
1 Midwifery—Licenses suspended
1 Midwifery—Complaint dismissed
1 Midwifery—Revocation or suspension pending

TYPE OF CASES INVESTIGATED (Total 268)

Druggists practicing medicine	30
Prescribing herbs and drugs	23
Unlicensed doctors	21
Licensed physicians assisting an unlicensed person	2
Chiropodists exceeding license	1
Chiropodists assisting an unlicensed person	2
Chiropodists practicing after failure to register	2
Unlicensed chiropodists	17
Chiropractors exceeding license	1
Chiropractors assisting an unlicensed person	1
Unlicensed chiropractors	84
Osteopath assisting an unlicensed person	1
Unlicensed osteopaths	1
Unlicensed midwives	1
Naturopaths	12
Physiotherapists	22
Laying-on-of-hands	1
Massage	8
Electrotherapists	1
Unlicensed medical school	1
Psychoanalysts	1
Diathermy treatments	2
Laboratory technicians	1
Metaphysician	1
Medical revocation	1
Midwifery revocation	3
Miscellaneous	27

Number of investigations and inspections made 268

Number of visits made and treatments received in making the investigations and inspections 1776

Average number of visits per investigation . 6.6

18th CENTURY MEDICINE IN NEW JERSEY

From the minutes of The Medical Society of New Jersey, meeting of Nov. 1, 1785: "The Committee appointed to visit the child under Dr. Scott's care* reported as their opinion that it was an abscess in the medulla of the os femoris, and that a large dilation of the wound ought to be made so as to give free discharge of the sanies:† ordered that Dr. Scott* make out a particular history of the case and report to the Society at the next meeting." (Page 46 of the 1785 *Transactions of The Medical Society of New Jersey.)*

* This was Moses Scott, not Norman Scott.

† After considerable research through old dictionaries, your editor tracked down the word "sanies". It is defined as a thin, blood-tinged, sero-purulent fluid.

COUNTY SOCIETIES

ATLANTIC

Sloan G. Stewart, M.D., President, Atlantic City

The year 1948-49 has been a very active and a very interesting one. The scientific programs were most instructive and all meetings well attended. The following speakers were presented:

September, 1948—Dr. Frank H. Mayfield: "Painful Lesions of the Cervical Spine and Shoulder Girdle".

October, 1948—Dr. Frank B. Walsh: "Sign Association With Head Injuries".

November, 1948—Dr. William J. Fuller: "The Early Diagnosis of Carcinoma of the Stomach".

December, 1948—Dr. Stewart G. Wolf, Jr.: "Arterial Hypertension".

January, 1949—Dr. I. S. Ravdin: "Carcinoma of the Large Bowel".

February, 1949—Dr. Alexander Brunschwig: "Operating the Inoperable".

March, 1949—Dr. Eugene C. Eppinger: "Curable Heart Disease".

April, 1949—Dr. J. Bargan: Topic to be announced.

May, 1949—Business meeting, election of officers.

A plan was formulated with the State Board of Child Welfare for medical services to their recipients and is already in operation. Plans were also adopted for the medical care of the indigent and medically indigent. Eleven new members were admitted to the Society, of whom three were regular and eight associate. The following members died during the past year: Drs. Homer I. Silvers, Clara K. Bartlett and George A. Poland.

An interesting broadcasting program was given by the Society in cooperation with local stations and consisted of topics of medical interest to the public and several "question and answer" talks.

Several hundred dollars were appropriated from the treasury for the purchase of new medical text books for the local library and a new projector for the showing of lantern slides during the scientific programs.

The Society played an important part in the Public Health Week in November, 1948, sponsored by the State Society. A graduate course was given by out-of-town lecturers for a six-week period and was well attended by the membership and by some non-member physicians.

The Society sponsored a plan for a mass x-ray survey in this county in conjunction with a project sponsored by the State Department of Health.

A Blood Bank program was adopted for operation in accordance with the plans submitted by the American Red Cross and is already functioning.

Approval was given for the purchase, with cancer funds, of a deep x-ray therapy unit for superficial skin cancer.

The Society unanimously approved a special assessment of $25.00, for educational purposes, in conjunction with the action taken by the State Society as suggested by the American Medical Association.

The program committee, and especially Dr. Clarence Whims, has done a wonderful job. I want to thank all the committees for their excellent cooperation during this administration.

BURLINGTON

Paul R. Sparks, M.D., President, Burlington

Outstanding event of the year was the Society's participation in Public Health Week last fall. The high school in Burlington was utilized; exhibits, movies and forums were held. Twelve exhibits were manned by physicians and nurses and numerous audience participation features aided in getting the story of health facilities available to the public. In addition to the yeoman work by members of the Society, many cooperating agencies lent invaluable assistance, both in personnel and equipment. These included local and county first aid squads, John A. Roebling's Sons Co., Burlington County Tuberculosis League, Local

Chapter Red Cross, South Jersey Dental Society, N. J. Commission for Blind, local visiting nurses' societies, County Chapter Cancer Association, both County Hospitals, local chapter of Elks. The exhibits were viewed by over 2000 people, in addition to many school children in groups. In afternoon and evening, movies were exhibited of subjects related to topics in the exhibits. Great interest was manifest in the five evening forums, whose subjects included cancer control, tuberculosis, cardiovascular disease, hospital care and arthritis. These were in form of a moderator, in each case a recognized authority in his field, and a panel of local men interested in or specializing in one field.

The Welfare Committee has assumed the job of auditing bills of County Welfare Clientele, to the satisfaction of the local Welfare Board. Also the committee is petitioning the Board of Freeholders to pay the charges of county patients sent to out-of-county contagious disease hospitals.

The scientific programs of the year have been marked by dissertations of great interest to the members, being practical considerations of every day problems mainly, rather than masterly scholarly discussions of theoretic or little used therapy.

The new constitution and by-laws (revised after many years) was adopted this year.

A testimonial to three members, Dr. George Tracy, Dr. Emlen Darlington, and Dr. Jacob Davis, all of whom have completed fifty years of active practice, is being held at the May meeting.

The Society has accepted the A.M.A. assessment and is actively participating in the emergency speakers' program; nine members attended the briefing session. The April meeting of the Society is being devoted to dissemination of information to the entire membership in order that the active society may have most recent data regarding the status of compulsory versus voluntary health insurance.

CUMBERLAND

Charles Cunningham, M.D., President, Vineland

The year 1948-49 for the Cumberland County Medical Society, has been a good one. The Society held its five regular meetings with excellent scientific papers and discussions at each one. Attendance at our meetings is only fair and could be improved.

For the first time a Speakers Bureau has been formed and is functioning.

The Society has formulated a graduate course. The first lecture was held in March. Lectures will be held on each Friday until the end of April. An excellent response has been shown by the members and the Society looks forward to this re-birth of graduate lectures in our county.

We are now setting machinery in motion for a county-wide blood typing program. It is our aim to have a "Walking Blood Bank" throughout the county. Due to the size of our communities, it is not feasible to have small individual blood banks in each.

We were able during the past months to come to an agreement with the Old Age Assistance Board, and have been trying to arrive at an agreement with the State Board of Child Welfare. It is expected that an agreement will be shortly reached.

The Society has just entered into an agreement with the Hospital Service Plan, and to date, thirty-six of the members are enrolled. It is hoped that soon all of the members will take advantage of this service.

ESSEX

George Blackburne, M.D., President, Newark

The Essex County Medical Society has had another active year with particular attention focused on combatting compulsory health insurance. To this end we have had meetings with speakers of national import, starting with the New Jersey senatorial candidates, and winding up with Dr. E. E. Irons, president-elect of the A.M.A. Alternating with these meetings we have had several scientific sessions. One was a meeting on cancer, in co-

operation with the Academy of Medicine of Northern New Jersey. Dr. Stanley P. Reiman of Philadelphia was the speaker. Dr. Frank Lahey packed the house with an illustrated talk on gastric surgery. A special meeting was held in January to consider the $25 assessment of the A.M.A., and I am proud to report that this assessment received the overwhelming support of our members, the majority of whom have already responded with their checks.

To stimulate more interest in our society, a large number of new committees have been formed in the various specialties. They are under the chairmanship of one of our Council, Dr. N. A. Antonius. Another new committee is that on medical preparedness which might prove to be of inestimable value in event of a sudden national emergency. This committee, under Dr. John V. Reilly, has circularized our membership and now has a fairly complete index of the physicians in this county regarding age, specialty, disabilities, dependents, previous service and availability for quick duty with the armed forces in case of need. Such a tabulation would have been of great value to Procurement and Assignment, if it had existed prior to World War II.

Our committee on the chronic ill, under Dr. William Hahn has recently completed the initial part of its work and is functioning most efficiently.

This society is particularly fortunate in having among its members and on its Council, a number of past and present state officers, and also one of the delegates to the A.M.A. It is thereby constantly kept up to date on all organized medical activities. I refer particularly to Dr. E. Z. Hawkes, Dr. Royal A. Schaaf, Dr. J. Wallace Hurff, Dr. Norman Scott, Dr. Earl L. Wood and many others active in our State Society. Our secretary, Dr. Mark Griefinger, has for years done a vast amount of quiet, sincere and efficient work without compensation.

Our public relations committee has been very busy with our health exhibit, press releases, radio and television broadcasts, liaison with other civic and health organizations, supplying speakers for lay organizations, etc. An endeavor is being made to indoctrinate any members who may be called upon to address lay groups or engage in debates on controversial subjects.

Our county blood bank under the direction of Dr. William D. Crecca is functioning smoothly and to date has supplied almost 10,000 pints of citrated blood.

Our male chorus under Dr. Daniel Kavanaugh is now on a self sustaining basis, and gave their first concert at the Academy of Medicine earlier this month.

A public health committee has been formed under the auspices of this society, with units in each community of the county. The one in Bloomfield is actively functioning at this time. Graduate courses under the auspices of the society, with Dr. Gerald I. Cetrulo as chairman, are being held at Seton Hall College. These classes are heavily attended, particularly by physician-veterans.

Our Woman's Auxiliary is cooperating with us 100 per cent and has sponsored and carried out a grand program of entertainment for ourselves, combined with informative meetings and lectures for the public. Dr. Joseph Echikson acts as coordinator in these projects.

Much of the success we have enjoyed during the past year has been due to the untiring efforts of our Public Relations Chairman, Dr. Harrold Murray, a past president of this Society, who is our unanimous candidate for second vice-president of The Medical Society of New Jersey.

GLOUCESTER

Frederick J. Faux, M.D., President, Woodbury

The Gloucester County Medical Society resumed its fall and winter meetings at the Woodbury Country Club.

Three new members were elected: Dr. Robert C. Puff, Dr. Robert B. Hutcheson, and Dr. Eli C. Clair. Dr. James G. Kehler, Jr., transferred from Mercer County Medical Society.

A pre-school Child Health Clinic for indigent children was established in Woodbury under the sponsorship of the Visiting Nurse Association. This is being manned by two of our doctors.

The Society approved the program of the A.M.A. in its National Health Plan and each member was assessed $25.00. The Society also approved the proposed blood donor program as submitted by the American Red Cross.

HUNTERDON

Edwin D. Merrill, M.D., President, Milford

The Hunterdon County Medical Society held its four regular meetings during the year. All of these have been faithfully reported in the Journal. In addition to the quartet of regular meetings, the Society year was punctuated by two special sessions—one a lawn party and picnic held last August under the auspices of the Woman's Auxiliary, a project which served to underscore the camaraderie and communion among the members which is one of the pleasant features of a small rural medical society. The other special session, held in February 1949 was devoted to the role of the practitioner in the organizational structure of the proposed Hunterdon County Medical Center.

The Society has named a representative to the rural health committee, has screened the publicity material released in connection with the rural health conference, has paid tribute to one of its senior members, Dr. Frederick Decker on the 50th anniversary of his start in medical practice, and has worked out a plan for rendering medical care to recipients of Old Age Assistance. Perhaps the most significant project of the year, however, has been the rising tide of interest in the proposed Hunterdon County Medical Center. The general conceptual blue-print for this institution was approved by the Society at the August 1948 meeting, and its organizational details were worked out by a liaison committee representing the medical society at a meeting of the Trustees of the Medical Center. As a result of this conference, the Society at its special meeting this February, was able to approve the details of the proposed hospital's staff structure which preserved the key role of the general practitioner in the care of patients at the future hospital. In this connection, the Society received the invaluable counsel of Dr. J. H. Hornberger who attended one of our meetings, and was able to give us both his official opinion as President of The Medical Society of New Jersey and practical suggestions accruing from his own experience with a small-city hospital in Mt. Holly. The plan for the proposed Hunterdon County hospital was described in the May 1948 Journal of The Medical Society of New Jersey (page 256) and received editorial commendation in the same issue.

MIDDLESEX

Edward F. Klein, M.D., President, Perth Amboy

The program of the Middlesex County Medical Society speaks for itself and is, perhaps, our best report. Since our meetings have been well reported in the Journal, it is not necessary to offer the details here. The scientific program was a rich one, covering a kaleidoscope of topics including such varied subjects as surgery in advanced cancer, the postcholecystectomy syndrome, violent deaths, liver function and the treatment of diabetes. This was seasoned by other activities such as a joint meeting with pharmacists, an annual social dinner meeting, a joint picnic and outing with the county dental association, a talk on state society activities by President Hornberger, and even so esoteric a topic as a lecture on the activities of the F.B.I.

MONMOUTH

Frank J. Altschul, M.D., President, Long Branch

The Monmouth County Medical Society has had a very active and interesting year. Our membership has increased considerably during 1948, and the meetings of the Society have been exceptionally well attended. The committee chairmen have carried out their duties in the most enthusiastic manner.

The program committee prepared a series of exceptionally instructive sessions throughout the year at the regular monthly meetings.

Prominent speakers, well-versed in their various specialties, discussed the following subjects:

"Recent Advances in Our Knowledge of the Contagious Diseases of Children With Special Reference to Immunization Procedures."
"Peripheral Vascular Disease." (Panel Discussion)
"Your Witness." (Medical-Legal Testimony)
"The Diagnosis of Rectal and Sigmoidal Conditions by Sigmoidoscopic Examination."
"Psychosomatic Medicine."
"Recent Advances in Chest Surgery."
"Newer Procedures in Urological Surgery."
"Causes and Management of Threatened or Inevitable Abortion."
"Prevention of Habitual Abortion."
"Viral Hepatitis in Relation to the Problem of Jaundice."

The Society has cooperated with the teaching programs instituted at the Fitkin Memorial and Monmouth Memorial Hospitals. These are two of the eight surburban hospitals affiliated with Bellevue in the resident and teaching program.

ROUND-THE-CLOCK EMERGENCY SERVICE

The public relations committee instituted a "Round-the-Clock" emergency medical service on July 8, 1948. A panel of 60 physicians volunteered their services in order that patients, in the event of emergency, who were unable to obtain the services of a physician, would be assured of medical attention. To date, in 64 such cases, the services of a physician have been provided through this project.

PUBLIC HEALTH WEEK

A special committee was appointed to note the observance of Public Health Week. A "Public Health Show" was presented throughout the five-day period, afternoons and evenings at the Asbury Park Convention Hall. Featuring the program were 31 health film exhibits, and nightly round-table health forums on cancer, child health, heart disease, tuberculosis and mental health. The overall attendance at the "Health Show" was estimated to be 9000.

Of the 31 exhibits, 12 were presented by committees of the County Medical Society and 19 by other organizations, agencies and institutions. Live exhibits proved popular as evidenced by the fact that over 300 x-rays were taken at the Tuberculosis Booth, 72 electrocardiograms and 300 blood pressures at the Heart Disease Exhibit, and 75 Wassermanns at the Venereal Disease Exhibit. Hundreds of questions were placed in the "Question Box" for discussion at the health forums each evening.

Members of the County Medical Society appeared as speakers before 18 civic clubs during the week, presenting a history of the achievements of organized medicine in the county and explaining the purpose of Public Health Week. Three of the forums were broadcast. Five other talks on health subjects were presented over station WCAP. Eighty-five newspaper articles concerning public health week (including 5 editorials) appeared in the newspapers; spot announcements were made periodically over the local radio stations; announcements were made in churches and schools and to other community groups; and signs, announcing Public Health Week, inviting the public to attend, were placed in office waiting rooms of physicians throughout the county.

Out of a membership of 199, 131 contributed to the success of the program in some way or another.

MEDICAL CARE FOR THE INDIGENT

Our committee for medical care of the indigent negotiated an agreement, now in effect, with the Monmouth County Welfare Board for medical care for recipients of Old Age Assistance on a basis of fee-for-service and free choice of physician. This committee is now investigating the possibility of a survey of publicly supported medical services in the county in order that each community may be persuaded to provide medical services to relief patients by the free choice, fee-for-service plan.

A liaison committee has been appointed to act in matters pertaining to the administration of the medical care plan for recipients of Home Life Assistance and children who are wards of the State Board of Child Welfare. This committee, in cooperation with the District Supervisor of the State Board of Child Welfare, presented a plan for medical care, which was adopted by the Monmouth County Medical Society and the State Board of Child Welfare. Incorporated in this agreement, are the principles of free choice of physician and fee-for-service rendered.

OTHER ACTIVITIES

The cancer control committee of the Society continues to play an active part in the county chapter of the American Cancer Society. In cooperation with the United States Public Health Service, the New Jersey State Department of Health and the State Cancer Society, a five year survey of the problem in Monmouth County will be conducted and a cancer registry established. This will make possible an accurate determination of the sta-

tus of cancer patients in the county and allow for a more complete evaluation of the methods of treatment and our future needs.

The cardiovascular committee sponsored the formation of the Monmouth County chapter of the New Jersey Heart Association. A member of this committee heads the newly-formed association and fifteen other members of the Society serve as officers or trustees.

Our poliomyelitis advisory committee is set up in accordance with the recommendation of the Trustees of the State Medical Society. Our crippled children committee works in close harmony with and plays an important part in the program of the county chapter of the National Foundation for Infantile Paralysis.

As a result of the efforts of the Woman's Auxiliary to the Monmouth County Medical Society, a Monmouth County council for better school health was organized and has adopted a listing of objectives for improved school health services. Heading this council is the chairman of the school physicians committee of the Monmouth County Medical Society. Local councils have been formed at a community level and it is planned to organize more of them in the near future to stimulate application of the principles adopted by the county group.

Officers and members of the County Medical Society have cooperated with other agencies and organizations in bringing about the formation of a Monmouth County Health Council with the medical society public health committee chairman to head the Council.

WOMAN'S AUXILIARY

A summary of the year's activities would not be complete without consideration being given to the part played by the Monmouth County Woman's Auxiliary. Our Auxiliary undertakes projects with unlimited vigor and enthusiasm. Their assistance during Public Health Week contributed much to the success of the observance and likewise, their efforts in stimulating the organization of the Better School Health Council is particularly worthy of special commendation.

GENERAL REMARKS

This is only a part of the activities carried out by the Society. Many other committees have worked diligently during the year and are not mentioned because of lack of space.

This is the second year that we have had an Executive Secretary. During this past year, it has become evident that our Society could not have functioned as efficiently without the valuable aid of Mr. Vincent Gorman.

During 1948, it was our privilege to have as our guests President Hornberger, Mr. James Bryan and other officers of the State Society. We take this opportunity to thank the State Society officers for their help and suggestions on more than one occasion. We have explained to our membership and carried out the policies of the Society on the many important problems confronting us, and we will do our best to continue to support the objectives formulated by the State Organization.

UNION

Rocco M. Nittoli, M.D., President, Elizabeth

The committees of our society have worked diligently on relevant problems. It has been most encouraging to find the members, now numbering 470, becoming more and more interested in the affairs of their organization.

The "Walking Blood Banks" established in Cranford and Roselle-Roselle Park have proved so successful that others are now being organized in Rahway, Union and Westfield. These projects have been endorsed by the society and organized through the cooperation of the local physicians, the American Red Cross and interested lay groups.

Last year an agreement was signed with the Board of Child Welfare to furnish medical care to the wards of the Board and this year a new agreement was signed with the Union County Welfare Board to conform to the statewide plan. As an advisory committee to the Union County Welfare Board has worked closely with the State Board in the past, it was necessary to make very few changes in the new agreement.

This year we inaugurated a plan of inviting the new members to an executive committee meeting in order that they might become acquainted with the officers and to give them an opportunity to see how the work of the society is carried out. They are thus able to ask questions and receive advice on some of the problems that face the physician starting in practice. The plan has proved of reciprocal benefit.

Union County is happy to report excellent

results from the new nominating committee policy which worked so satisfactorily this year. We give credit to the Essex County Medical Society. With their permission, we lifted some changes from their constitution, and incorporated them in ours.

In order that no person should ever be without medical care when needed, a "round-the-clock" emergency medical service was established last November. More than fifty per cent of the membership signified their willingness to serve on the panel. From the commendations received, the service rendered has been far greater than anticipated.

The program committee and the medical education committee have worked together with the result that a fine program was provided at all scientific sessions of the regular meetings, and a second graduate lecture course in medicine was given. Members (through a recent questionnaire) have expressed the desire for the continuation of the graduate courses and Rutgers University will again assist in setting them up.

Due to mounting demands for advertising in our *Bulletin* we found it necessary to increase it from a 16-page to a 24-page publication. We deeply appreciate the continued support of our advertisers which have made it possible for us to make improvements in the *Bulletin*.

The legislative committee, the public relations committee and the Summit Association of Scientists sponsored a program in February, on compulsory health insurance with Dr. Louis Bauer (Vice-Speaker of the House of Delegates of the American Medical Association) as the essayist.

The Woman's Auxiliary continues to grow and to expand its activities. Their membership now totals 133; an increase of 30 this year. The second annual ball was most successful and the Student Nurses' Fund is again the beneficiary. The Auxiliary sponsored (with the endorsement of the society) an open meeting on compulsory health insurance with Mr. Arthur L. Conrad, Associate Administrator, National Physicians Committee, as the speaker.

An emergency speakers' bureau has been formed and ten members expressed willingness to go before groups to discuss compulsory health insurance.

On March 6, 1949, the new radio station WPOE in Elizabeth initiated a series of transcribed programs furnished through the cooperation of the A.M.A. and The Medical Society of New Jersey and sponsored by the county society. The program director, through his new contact with the society, is interested in having doctors take an active part in the programs by giving ten weekly broadcasts in the various specialties. Plans are now being worked out for this project.

The Union County Medical Society voted unanimously to endorse the special assessment for the educational fund of the American Medical Association. We will cooperate in every way to implement this program.

Our Executive Secretary continues her activities for the society by attending, through her affiliations with various civic and health organizations, the many meetings necessary to keep us informed on all matters of interest to them. She has also attended the Welfare Meetings of the State Society, the Board Meetings of the Woman's Auxiliary and the Annual Meeting of The Medical Society of New Jersey.

The Executive Office staff continues in its usual high gear, the routine administrative work of the society. The facilities of the office are available to lay groups or individuals wishing to hold conferences with the profession and are used often for that purpose.

To the officers and to the members of the society, I wish to extend my appreciation for their attendance at meetings and for their cooperation in carrying out our program this past year.

FIFTY YEARS AGO

Papers on the program of the 1899 annual meeting included: "Diagnosis of Insanity: Its Methodology" by J. L. Corning; "Traumatic Neurasthenia" by J. D. McGill; "Circumcision, Its Moral and Physical Necessity" by A. W. Taylor; a report of "The Committee on the Abuse of Medical Charity" by T. Y. Sutphen, and "Does Medicine Cure?" by Henry Chavanne. (From the 1899 *Transactions of The Medical Society of New Jersey.)*

18th CENTURY MEDICINE IN NEW JERSEY

From the minutes of The Medical Society of New Jersey, May 6, 1789: "The Society met and went into a general discussion on 'What are the causes of dysentery and methods of cure?'. A vote was at length taken on the question of the proximate cause of dysentery and was carried in favor of spasm." (Page 74. *Transactions of The Medical Society of New Jersey*, 1789.)

BOOK REVIEWS

Hodgkin's Disease and Allied Disorders. By Henry Jackson, Jr., M.D., and Frederic Parker, Jr., M.D., New York, Oxford University Press, 1947. ($6.50)

This is a useful, well written, and excellently illustrated summary of known facts on an important subject. The book interests the reader for the new classification which the authors felt justified to suggest in order to throw more light on the pathogenesis of Hodgkin's disease. They try to divide the disease into three types, paragranuloma, granuloma and sarcoma, on the basis of two features: (1) The presence of so-called Reed-Sternberg cells, without which the diagnosis of Hodgkin's disease is not justifiable; and (2) The transformation of one type of the disease into another.

The term "early Hodgkin's" is, in their opinion, unfortunate because many patients afflicted with paragranuloma live for many years. One of their patients, properly diagnosed by biopsy thirty-nine years ago, is still alive and active in spite of the fact that repeated successive biopsies prove that the condition is still present. The term "early" is, therefore, ill-chosen. The prefix "para" indicates "in close relation to". This is a new viewpoint which, in the reviewer's opinion, does not help us much, in spite of the early diagnosis, as far as prognostication is concerned. "Is it malignant or non-malignant?" is the question which the pathologist alone fails to answer in early diagnosed cases. That is a very important point. Today, it seems certain that the character of the onset and the clinical course (acute or chronic) decides the clinician's prognostic verdict.

FELIX BAUM, M.D.

Twentieth Century Speech and Voice Correction. Edited by Emil Froeschels, M.D., Pp. 321. New York, Philosophical Library, 1948. ($6.00)

In the foreword of this book, the editor states: "This volume has been written at the request of the publisher." It appears to show much more of a drive in the direction of satisfying some outside influence rather than any inspiration of writing.

There is a peculiar conglomeration of facts thrown together, including such data as the anatomy and physiology of the larynx, paragrammatism in children, rhinolalia, and types and descriptions of operations for cleft palate and harelip.

In one chapter (XIV) the author speaks of "Logopedic Contemplations Regarding the Construction of a Special Type of Obturator Against Hyper-Rhinolalia in Cases of Cleft Palate (Meatus-Obturator)."

This book is certainly not meant for physicians, psychiatrists, psychologists or the average speech training specialists; but it does serve to confuse an already difficult subject.

DAVID J. FLICKER, M.D.

Communicable Diseases by Franklin H. Top, M.D., M.P.H., 2nd Ed., Pp. 992. St. Louis, The C. V. Mosby Company, 1947. ($8.50)

Excellently illustrated, well written, authoritative are the words which first come to mind in appraising this book. Unfortunately these must be qualified by saying that Dr. Top and his collaborators have bitten off more than they can chew. The book tries to be all-inclusive. It thus loses value as a reference book while at the same time there is more in it than is needed by the average practitioner or student. For example, why include such an entity as rheumatic fever in a textbook of communicable diseases? The author states that "the cause is unknown" and no authority claims that rheumatic fever is transmitted from person to person.

Like any textbook, this one suffers in review because of the march of therapeutic progress, particularly in the field of infectious diseases. For example, the use of streptomycin in tuberculous and influenzal meningitis could not have been included at the time of writing. Penicillin in the treatment of syphilis is described as being still in the "experimental" stage. Chloromycetin and aureomycin were unheard of when the book was written. This applies to any textbook as soon as it leaves the press.

The chapter on the care of the contagious patient in the home would be very helpful in every day practice except that it is assumed a public health nurse would be visiting regularly. The sections on diagnosis are excellent and help redeem some of the faults of the book. Color illustrations of skin lesions in this volume are excellent.

This handbook, while having many valuable features is not recommended for purchase by the physician in everyday practice.

MILTON M. WILLNER, M.D.

A-B-C's of Sulfonamide and Antibiotic Therapy. By Perrin H. Long, M.D. Pp. 231. Philadelphia, W. B. Saunders Co., 1948. ($3.50)

This small but excellent book presents the practical aspects of sulfonamide and antibiotic therapy. It includes a description and dosage of the commonly used preparations of penicillin, streptomycin, tyrothricin and of the four most widely used sulfonamide drugs. There is a short review of the clinical pharmacology of these drugs, a discussion of their toxic effects, and a brief section devoted to useful hints. Detailed outlines are provided for the use of one or another of these drugs in all the infectious states, from "abscess" to "yaws".

The material is presented briefly, clearly, and dogmatically. Practical aspects are given first consideration. There is no lengthy discussion, no presentation of experimental data, and no bibliography. The preface was written in July 1948, and advances made after that date are not included.

ROWLAND D. GOODMAN, 2nd, M.D.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **April, 1949** **No. 4**

ROUTINE chest X-rays of all hospital admissions is a "mass-survey" method of great importance—comparable in numbers of subjects available only to surveys of industries, communities or the armed services. While used primarily to find cases of tuberculosis, such surveys also uncover other lung, heart, and chest lesions and increase hospital efficiency.

THE CURRENT STATUS OF ROUTINE CHEST X-RAYING IN GENERAL HOSPITALS OF THE UNITED STATES

The X-raying of general hospital admissions started in 1935 when the Wisconsin General Hospital and the University Hospital in Michigan began X-raying all admissions for a trial period. In 1938 no hospital was taking chest films of all patients but by 1943, 56 teaching hospitals professed to be taking routine chest X-rays and in 1945 eight per cent of general hospitals indicated that they were taking routine films.

The Current Survey

When information on the subject was sought in the spring of 1948, the data available from groups such as the National Tuberculosis Association, the Public Health Service, the American Hospital Association and the Veterans Administration were incomplete. It was decided, therefore, to proceed with an independent survey which, even if incomplete, might show trends and supplement the information already at hand.

It seemed wisest to seek information from the State Health Departments, 42 of which now have Tuberculosis Divisions and Control Directors, many of whom are working closely with the Public Health Service. Miraculously, reports were received during August, 1948, from every one of the 48 states. Additional help was received from physicians and from officials of tuberculosis associations.

A brief questionnaire was used to obtain the data and to explain the purpose of the survey. One question was stressed as being most important—"*Which general hospitals in your state are now taking routine chest X-rays of all admissions?*" Other questions were aimed at finding out whether plans were under way for an increased use of the method; what size film was being used; who paid for the original equipment and for maintenance; and whether cost data were yet available.

The term "general hospital" was used advisedly. There were 6276 registered hospitals in the United States in 1947, of which 4539 were general in type; specialty and federal hospitals were excluded. The patients of general hospitals, moreover, included 93 per cent of the 15,829,514 patients admitted to *all* hospitals, even though they had only 42 per cent of the bed capacity. It is this population—14,665,000 patients, plus another huge number of outpatients each year—which it would be most logical to examine routinely, and about which we would like to know.

Of the 4539 general hospitals in the United States, 247 replied that they were taking routine chest X-rays. Several additional hospitals stated that they had plans and equipment for starting such a program. The equipment for routine chest X-rays was provided by the hospital in 33 instances; by the state for 110 hospitals, by the federal government for 49 and by the city and county for four. The funds for equipment for 40 hospitals were supplied by tuberculosis associations. The survey was supported by the hospital in 92 instances, by the state in 59, and by the city or county in 11. All or part of the cost was borne by the tuberculosis association in nine instances and by a direct charge to the patient in 20 instances.

The best data for cost in a large-scale operation and the best evidence that a low cost is possible

come from the Johns Hopkins Hospital. The operating expense for a 70 mm. unit, including all factors, was 34 cents per patient when 1400 films a month were taken, and 25 cents when 2100 were taken. In community-wide surveys, which compete in some ways with hospital surveys, the Public Health Service has found the usual cost to be about 55 cents per person.

The actual efficiency of the method in the hospitals is highly variable. The term "routine" is a misnomer. Factors which contribute to this partial usage include difficulties of administration, technical inconvenience, lack of an interested director, opposition of staff members, and the exclusion of certain patient groups (infants, obstetrical patients, very ill patients, surgical patients and private patients). Administration is a more difficult obstacle than the cost of equipment. Since the actual efficiency of the camera film, the 4 x 5 film, the 14 x 17 single film, and paper X-rays is said to be practically the same, cost and convenience are the real criteria for choice.

Summary and Conclusions

A survey has been made to determine the current use of routine chest X-rays in general hospitals of the United States. State Boards of Health were used as the principal source of information. Two hundred and forty-seven of the 4539 general hospitals in the United States are reported to have a program in action. Numerous other hospitals have equipment or plans for starting a program. The number of hospitals now taking routine films is double the number said to be doing so in 1945. Few of the hospitals include all of their patients in these "routine" surveys. Use of the method must be extended to more hospitals, and to more of the registrants of the hospitals if it is to approach its real value. The source of funds for equipment is largely civic, with voluntary groups giving valuable assistance. The "drive" has come from federal, voluntary, and hospital groups. Funds for maintenance of routine X-raying come from both subsidies and charges. Not enough data are available yet to determine the cost of taking the various kinds of X-rays under the diversity of conditions. Charges, where made, are not yet based on an accurate estimation of costs. There is evidence that costs may be decreased. Lack of funds, lack of information, inertia, and the chores of administration are the barriers to wider usage of the method. For each of these problems, there seems to be a solution.

The Current Status of Routine Chest X-raying in General Hospitals of the United States, William H. Oatway, Jr., M.D., Arizona Medicine, January, 1949.

SUPPLIED BY
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1. Murphy, F. D.: Treatment of Cardiovascular Emergencies in the Home, Wisconsin M. J. 42:769 (Aug.) 1943

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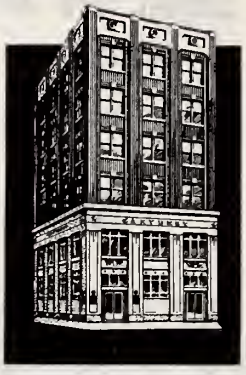
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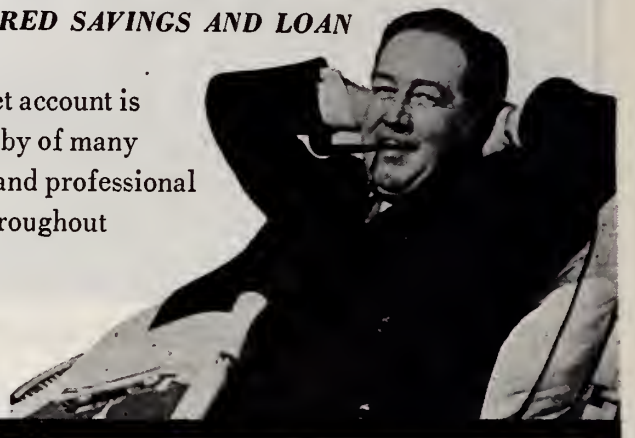
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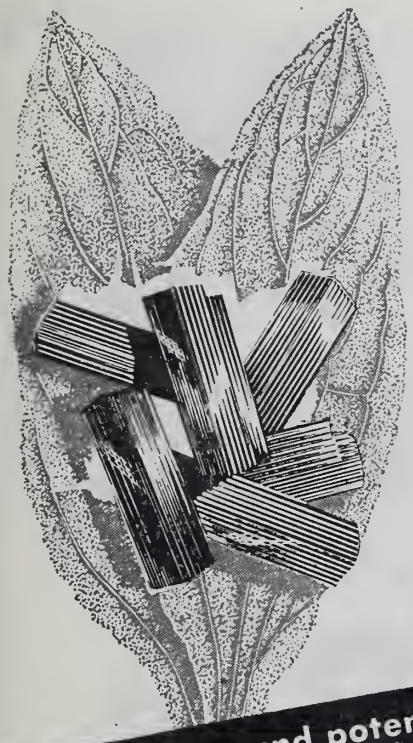
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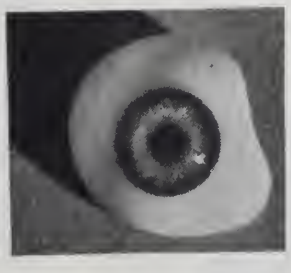
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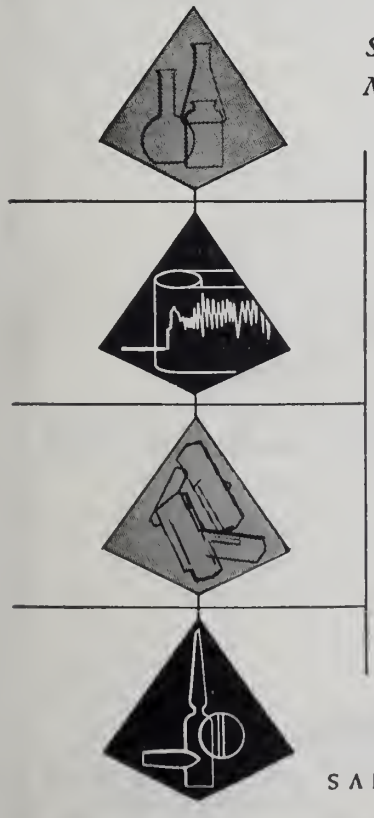
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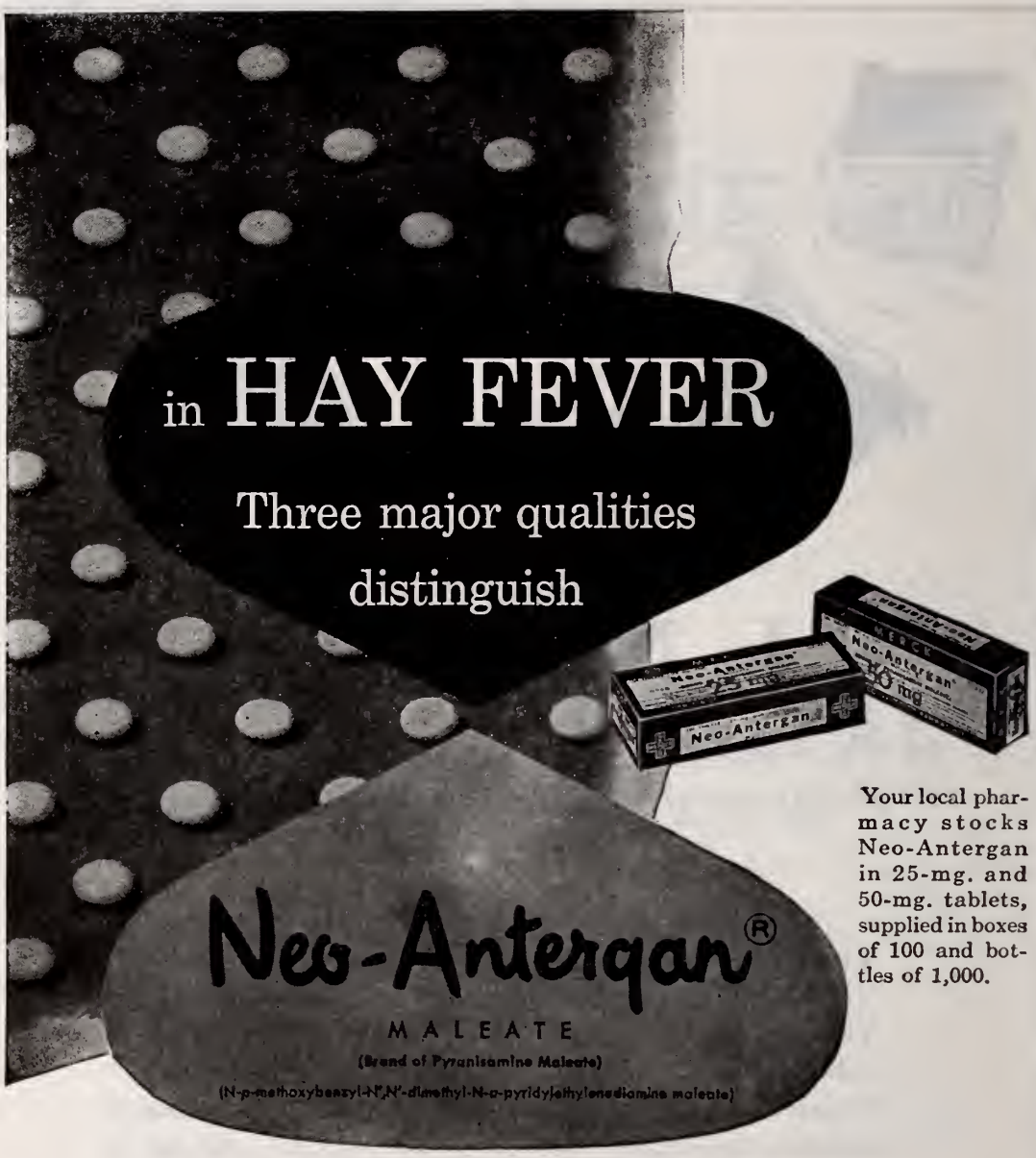
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Thiamine Hydrochloride USP	2 mg.
Riboflavin USP	2 mg.
Pyrodoxine Hydrochloride	1 mg.
Ascorbic Acid USP	50 mg.
Niacinamide USP	10 mg.
Calcium Pantothenate	2 mg.
Potassium Iodide USP	0.324 mg.
Ferrous Sulfate (Dried) USP	64.8 mg.
DiCalcium Phosphate Anhydrous	768 mg.
Vitamin E	5 Int. units

DOSAGE: One or two capsules daily

ALLIED DRUGS, Inc.

HACKENSACK NEW JERSEY



Your local pharmacy stocks Neo-Antergan in 25-mg. and 50-mg. tablets, supplied in boxes of 100 and bottles of 1,000.

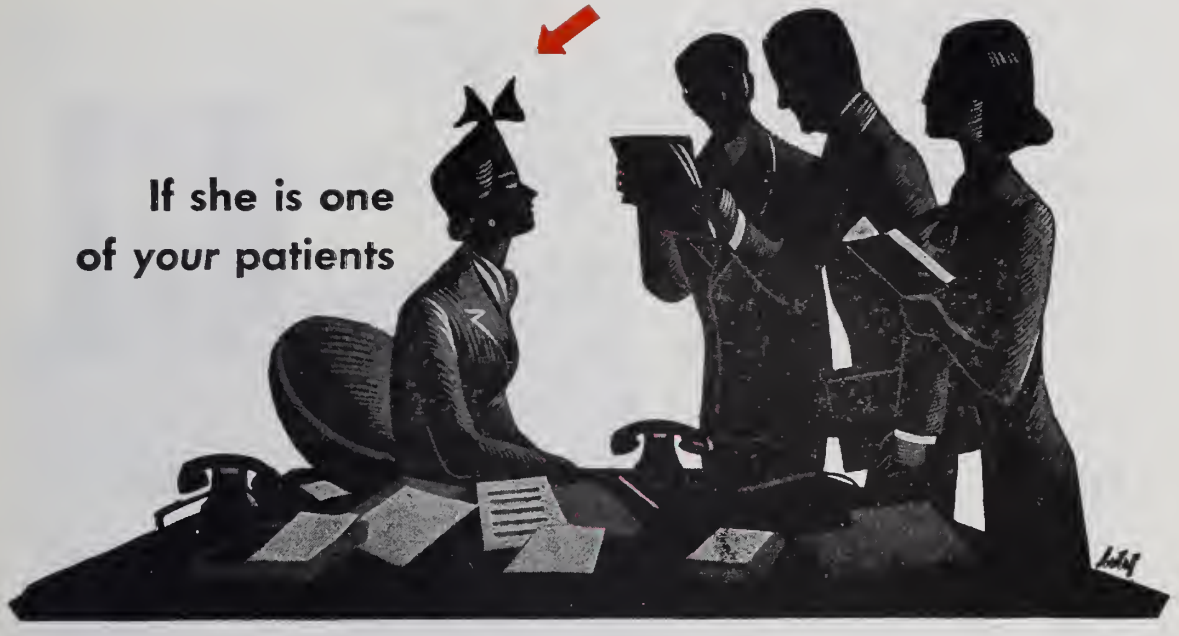
1. EFFICACY Neo-Antergan has provided complete or appreciable symptomatic relief in 71 per cent of an accumulated series of more than 500 cases of hay fever.

2. WIDE THERAPEUTIC RANGE Neo-Antergan has proved effective in relieving allergic symptoms in certain patients who had failed to respond to other therapeutic measures.

3. SAFETY It was necessary to discontinue Neo-Antergan therapy only in approximately 3.5 per cent of a series of over 1,500 patients because of untoward side effects.

MERCK

MERCK & CO., Inc. *Manufacturing Chemists* **RAHWAY, N. J.**



If she is one of your patients

...Your help now may spell the difference between unprovided-for old age and economic security.

Women in business who are nervous, emotionally unstable and generally distressed by symptoms of the climacteric almost inevitably experience a reduction in efficiency as well as earning power.

"**Premarin**" offers a solution. Many thousand physicians prescribe this naturally-occurring, oral estrogen because...

1. Prompt symptomatic improvement usually follows therapy.
2. Untoward side-effects are seldom noted.
3. The sense of well-being so frequently reported tends to quickly restore the patient's confidence and normal efficiency.
4. This "Plus" (the sense of well-being enjoyed by the patient) is conducive to a highly satisfactory patient-doctor relationship.
5. Four potencies provide flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg. and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

Ayerst

While sodium estrone sulfate is the principal estrogen in "**Premarin**," other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water-soluble conjugates.

"PREMARIN"®

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

ESTROGENIC SUBSTANCES (WATER-SOLUBLE)
also known as CONJUGATED ESTROGENS (equine)

Ayerst, McKenna & Harrison Limited 22 East 40th Street, New York 16, New York

4912

when Milk becomes a dietary dilemma





Problem: When casein or other animal protein sensitivity renders all natural or processed milks* contraindicated in the pediatric dietary, because of eczematous, gastro-intestinal or other reactions, how can allergy be avoided and proper infant nutrition still be maintained?

Solution: Replace milk with Mull-Soy, the liquid hypoallergenic soy food—completely free of offending animal proteins. Mull-Soy is a biologically complete vegetable source of all essential amino acids, and closely approximates whole cow's milk in fat, protein, carbohydrate, and mineral content when diluted 1:1 with water. It is quickly prepared, palatable, easily digested and well-tolerated—equally desirable for infants, children or adults.

**Goat's milk and processed cows' milk have unmodified casein factors.*

BORDEN'S PRESCRIPTION PRODUCTS DIVISION
350 MADISON AVENUE, NEW YORK 17, N. Y.
In Canada write The Borden Company, Limited, Spadina Crescent, Toronto

Mull-Soy is a liquid hypoallergenic food prepared from water, soy flour, soy oil, dextrose, sucrose, calcium phosphate, calcium carbonate, salt, and soy lecithin; homogenized and sterilized. Available in 15½ fl. oz. cans at all drugstores.



Mull-soy

When Milk becomes "Forbidden Food"

Here's what throat specialists reported about Camel Mildness—



In a recent coast-to-coast test, hundreds of men and women smoked Camels—and only Camels—for 30 consecutive days. They smoked on the average of one to two packs a day. Each week throat specialists examined the throats of these smokers, a total of 2470 careful examinations, and reported

"NOT ONE SINGLE CASE OF THROAT IRRITATION due to smoking CAMELS"



Money-Back Guarantee!

Try Camels and test them as you smoke them. If, at any time, you are not convinced that Camels are the mildest cigarette you've ever smoked, return the package with the unused Camels and we will refund its full purchase price, plus postage. (*Signed*) R. J. Reynolds Tobacco Company, Winston-Salem, North Carolina.

According to a Nationwide survey:

MORE DOCTORS SMOKE CAMELS

than any other cigarette

Doctors smoke for pleasure, too! And when three leading independent research organizations asked 113,597 doctors what cigarette they smoked, the brand named most was Camel!

One Day's Food For A WALKER-GORDON COW



CORN SILAGE — 24 lbs.



DEHYDRATED ALFALFA HAY — 8.5



ALFALFA SILAGE — 13 lbs.



GRAIN MIXTURE — 13 lbs.
14 (ingredients)

1. Molasses . . . 1.9 lbs.
2. Mineral . . . . 0.1 lb.
3. Salt . . . . . 0.2 lbs.
4. Soybean Meal 0.5 lbs.
5. Gluten Feed 0.5 lbs.
6. Linseed Meal 0.1 lb.
7. Distillers Grain 0.5 lb.
8. Brewers Grain 0.5 lb.
9. Bran . . . . . 1.5 lbs.
10. Oats . . . . . 2. lbs.
11. Corn . . . . . 1.5 lbs.
12. Babassu Meal . 1. lb.
13. Malt Sprout . 1.5 lbs.
14. Barley . . . . . 1.5 lbs.



WATER — 85 quarts

THIS SCIENTIFIC daily ration was developed after years of study by the Walker-Gordon Laboratories.

It is remarkably rich in vitamins and health-giving minerals . . . And that's one big reason why Walker-Gordon cows produce a milk far superior to the type you get from cows that are fed in the ordinary, unscientific way.

Take Vitamin A, for example. The alfalfa fed a Walker-Gordon cow is not ordinary alfalfa, but a special dehydrated kind containing more Vitamin A. As a result, her milk contains more Vitamin A than many ordinary milks.

And though the quantity of some other vitamins varies in ordinary milk (according to the season and what the cows find to eat), the vitamin content remains uniformly high in Walker-Gordon Certified . . . the year 'round.

Then, too, Walker-Gordon Certified is delivered fresher than ordinary milk. This, plus the cows' wonderfully balanced diet, makes its Vitamin C content higher . . . and gives it a much finer, richer taste.

So it's easy to see why more and more physicians recommend Walker-Gordon Certified to their patients. They believe it's well worth a few pennies extra to get this marvelously pure milk with all its added nutritional values.

WALKER-GORDON CERTIFIED

THE WORLD'S FINEST MILK

For free illustrated booklet, write to Walker-Gordon, Plainsboro, N. J.



Particularly in obstetrics, the power of DEMEROL hydrochloride to allay pain, usually without depressing respiration or endangering mother or child, is of the highest order of significance. DEMEROL hydrochloride is a specific for *pain.*

Average adult dose: 100 mg.

Ampuls of 2 cc. (100 mg.); vials of 30 cc. (50 mg./cc.); tablets of 50 mg. and 100 mg.

Winthrop-Stearns Inc.
New York 13, N. Y.
Windsor, Ont.

DEMEROL®

HYDROCHLORIDE

WARNING: May be habit forming. Narcotic blank required.

Demerol, trademark reg. U. S. & Canada, brand of meperidine (isonipecaine) hydrochloride.



WHY A FIBRIN HYDROLYSATE ?

AMINOSOL 5% with Dextrose 5% was developed as a protein hydrolysate after much research work on different source materials. Numerous nutrition experiments pointed to the unique role of fibrinogen as a normal constituent of the body. A recent clinical investigation[1] indicates that peptides in a protein hydrolysate derived from fibrin as a source material are retained better and are excreted to a considerably smaller extent than are the peptides derived from other protein source materials.

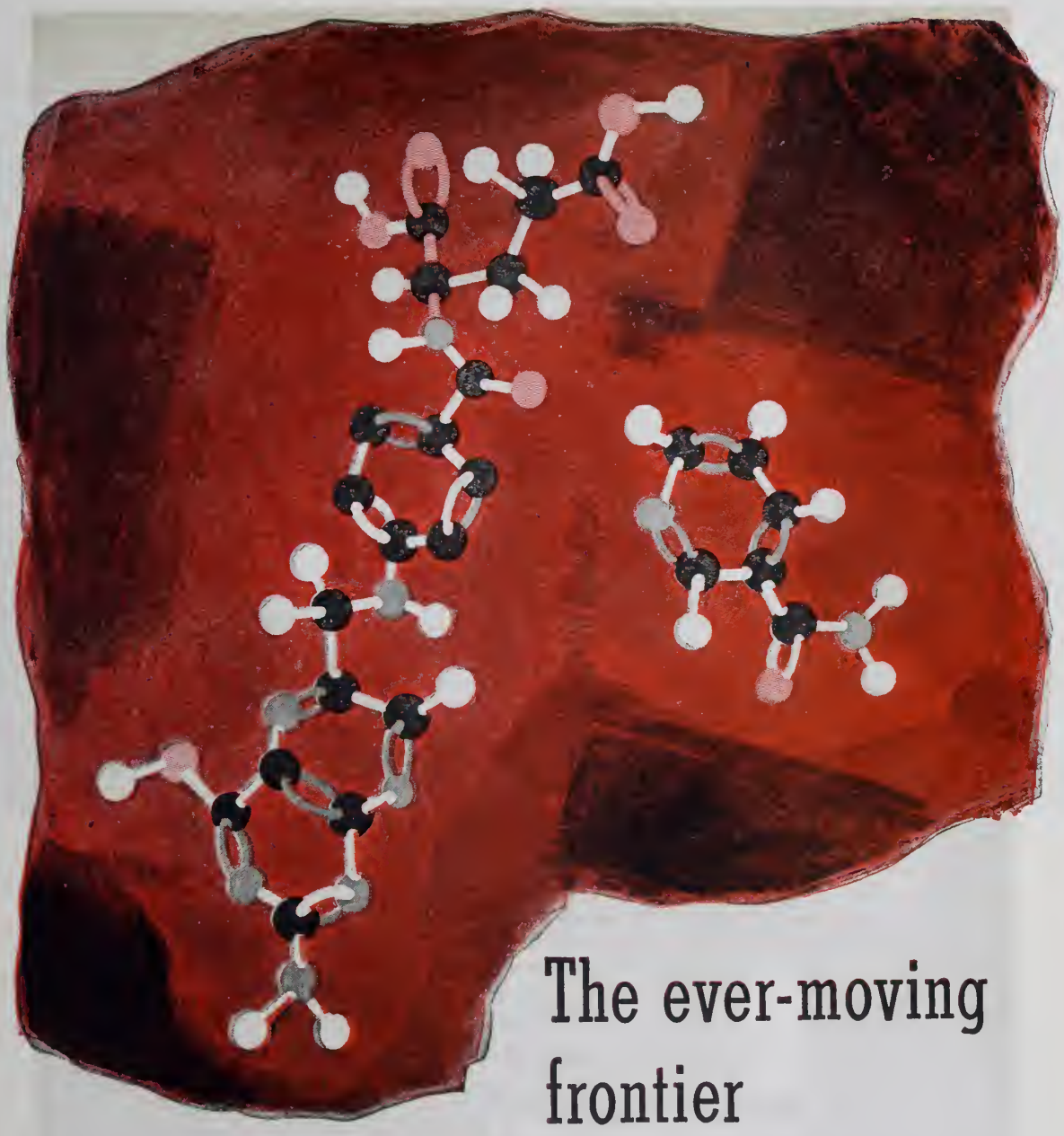
Fibrin was selected as the source for AMINOSOL because of its completeness as a food protein. The result is a hydrolysate which, after stringent animal and human use, has been shown to have high biological value and stability. AMINOSOL is assayed for the absence of anaphylactic properties by a very rigid procedure. Freedom from pyrogens is assured. The practical absence of sodium ion recommends it for use in cardiac and renal conditions where a salt-free diet is indicated.

AMINOSOL is supplied in 500-cc. and 1000-cc. Abbott Intravenous Solution Containers, ready to use. Obtain added safety and convenience in administration by using the sterile, disposable VENOPAK* equipment.
ABBOTT LABORATORIES, NORTH CHICAGO, ILLINOIS.
**Trade Mark for Abbott's completely disposable venoclysis unit.*

AMINOSOL® 5% WITH DEXTROSE 5%

(Abbott's Modified Fibrin Hydrolysate 5% with Dextrose 5%)

1. Christensen, H. N., Lynch, E. L., Decker, D. G., and Powers, J. H. (1947), The Conjugated, Non-Protein, Amino Acids of Plasma. IV. A Difference in the Utilization of the Peptides of Hydrolysates of Fibrin and Casein, J. Clin. Invest., 26:849, September.



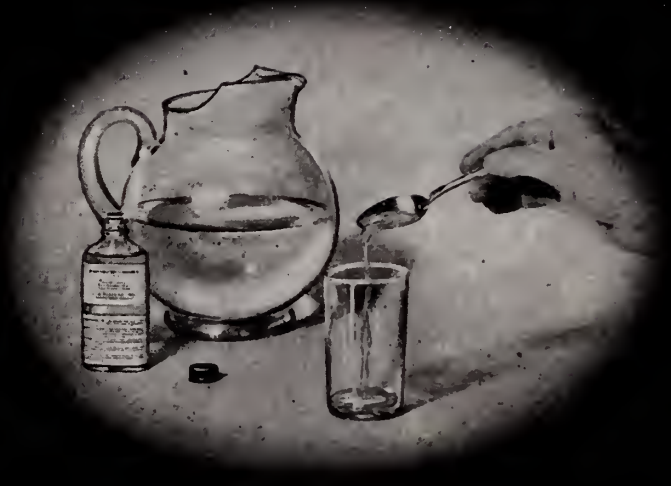
The ever-moving frontier

Research on vitamin knowledge in the field of nutrition has come a long way since the early published researches of McCollum, Mendel and Funk. The science of nutrition is no longer the stepchild of medicine, nor the poor relation of agriculture. In particular, our understanding of the need for vitamins in human nutrition has enormously increased. Vitamins constitute in the aggregate the *sine qua non* for cellular respiration, reproduction, growth and repair.

For the past 25 years, biochemists have pressed forward a continually moving frontier of scientific discovery in the field of nutrition. In recent years, *Lederle* has been in the vanguard of this movement, its investigators being well known for their achievements with folic acid, pyridoxine, biotin, the pantothenates, liver extract, and allied substances. There will be no slackening in the efforts of this organization to uncover additional aids to better health and better living.

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY
30 ROCKEFELLER PLAZA • NEW YORK 20, N. Y.

Judicious Laxation



through ease of administration

Of the many features which have won for Phospho-Sodo (Fleet)* on impressive record of clinicol acceptonce, outstonding is its ease of odministration. This, together with its controlled action, ond its freedom from undesirable side effects, gives assuronce that every prescription of Phospho-Sodo (Fleet) will result in thoroughly effective — yet gentle — catharsis.



C. B. FLEET CO., INC. • LYNCHBURG, VIRGINIA

*"PHOSPHO-SODA" and "FLEET" are registered trade-marks of C. B. Fleet Co., Inc

PHOSPHO-SODA
(FLEET)

CHECK LIST for choice of a laxative

Phospho-Soda (FLEET)	TYPE OF ACTION	Phospho-Soda (FLEET)	SIDE EFFECTS	Phospho-Soda (FLEET)	ADMINISTRATION	Phospho-Soda (FLEET)
✓	Prompt action	✓	Absence of Constipation Rebound	✓	No Disturbance of Absorption of Nutritive Elements	✓	Flexible Dosage	✓
✓	Thorough action	✓	No Development of Tolerance	✓	Causes no Pelvic Congestion	✓	Uniform Potency	✓
✓	Gentle action	✓	Safe from Excessive Dehydration	✓	No Potient Discomfort	✓	Pleasant Taste	✓
✓	Free from Mucosal Irritation	✓	Nonhabituating				Free from Cumulative Effects	✓

Phospho-Soda (Fleet) is a solution containing in each 100 cc. sodium biphosphate 48 Gm. and sodium phosphate 18 Gm.

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Natural antirachitic medication . . .

White's Cod Liver Oil Concentrate Liquid provides potent, antirachitic, natural vitamins A and D. Each two drops is equivalent, in vitamin content, to one teaspoonful of cod liver oil,* containing 312 units of vitamin D wholly derived from cod liver oil, and 3,120 units of vitamin A, supplied by cod liver oil concentrate adjusted and standardized with fish liver oils.

ECONOMICAL Cost-to-patient—about a penny a day for antirachitic protection of average infant. In convenient, palatable Liquid form—dropper administration.

Also available in pleasant-tasting Tablets and higher potency Capsules. White Laboratories, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.

White's Cod Liver Oil Concentrate Liquid

One of White's Integrated Pediatric Vitamin Formulas

*U. S. P. Minimum Requirements

Dienestrol in the menopausal syndrome

CLINICAL STUDIES SHOW:

Less withdrawal bleeding

"Occurrence of withdrawal bleeding is relatively infrequent following the use of dienestrol."

Finkler, R. S. and Becker, S.: Dienestrol: A New Synthetic Estrogen, J. A. M. A., *1*:152 (Aug.) 1946.

Well tolerated

"Dienestrol was very well tolerated by all menopausal patients."

Rakoff, A. E., Paschkis, K. E. and Cantarow, A.: A Clinical Evaluation of Dienestrol, A Synthetic Estrogen, J. Clin. Endocrinol., 7:688 (Oct.) 1947.

Low toxicity

"This low incidence of nausea [1.3 per cent] is . . . in contrast with that encountered during treatment with other synthetic estrogens."

Finkler, R. S. and Becker, S.: "A Preliminary Evaluation of Dienestrol in the Menopause, Am. J. Obst. & Gynec., *53*:513 (Mar.) 1947.

Low recommended dosage

"Clinical trials...indicate that doses of 0.2 to 0.5 mg. daily are adequate, dependable and tolerated..."

Sikkema, S. H. and Sevringhaus, E. L.: Dienestrol: Another Synthetic Estrogen of Clinical Value, Am. J. Med., *2*:251 (Mar.) 1947.

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White's **DIENESTROL**

Now in 2 forms:

Dienestrol Tablets—0.1 mg. and 0.5 mg.—bottles of 100.

Aqueous Suspension of Dienestrol—5 mg. per cc., 10 cc. vials.

WHITE LABORATORIES, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.

safe...rational...effective

in the treatment of **overweight**





Harris, Ivy and Searle conclusively proved that 'Benzedrine' Sulfate safely depresses the overweight patient's appetite—and when caloric intake is sufficiently lowered, weight reduction is facilitated. After a comprehensive series of functional tests, these same investigators conclude: "No evidence of deleterious effects of the drug (amphetamine sulfate) were observed." (J.A.M.A. 134:1468, 1947).

Benzedrine* Sulfate tablets • elixir

(racemic amphetamine sulfate, S.K.F.)

one of the fundamental drugs in medicine

Smith, Kline & French Laboratories, Philadelphia *T.M. Reg. U.S. Pat Off.

ANNOUNCING: First Television, in Natural Color, of Surgical and Medical Procedures while under way. Arranged and presented by Smith, Kline & French Laboratories—AMA Convention, June 6, 7, 8 & 9, at Atlantic City.

MEAT...
and Physical Rehabilitation

Any marked loss of weight in the nonobese patient deprives the organism of a considerable amount of protein, apt to lead to severe protein deficiency. A weight loss of 5 Kg. does not appear large as such. Yet it is estimated that it may well entail a simultaneous loss of as much as 900 Gm.—or two pounds—of tissue protein,* taken from the scant protein stores of the body, from the muscles, liver and other viscera. Prevention of such large protein losses or rapid replacement of depleted protein stores is imperative. Nitrogen balance must be re-established as quickly as possible to promote local healing and general recovery in many surgical conditions, in severe burns, in metabolic disturbances, and following overwhelming infections.

Meat as the primary source of protein affords a number of special advantages in the period of actual dietotherapy as well as during recovery and rehabilitation. It is of excellent digestibility so that it can be easily eaten two or three times a day to satisfy increased protein requirements.

The appetizing taste appeal encourages simultaneous intake of other valuable foods, especially desirable in the presence of anorexia.

All meat is notably rich in biologically complete protein, from 17 to 20 per cent of its uncooked and from 25 to 30 per cent of its cooked weight. Furthermore, meat ranks with the best sources of B-complex vitamins and iron, important nutrient factors in physical rehabilitation.

*Meyer, K. A., and Kozoll, D.D.: Progress in the Treatment of Carcinoma of the Stomach and Esophagus, South Dakota J. Med. & Pharm. 2:39 (Feb.) 1949.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute

Main Office, Chicago...Members Throughout the United States

CONSTANT INSPECTION for BABY'S PROTECTION

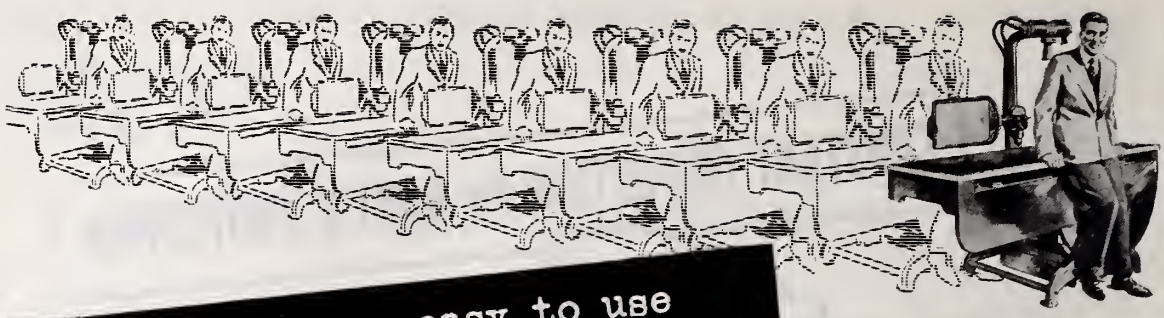


No, we don't look down the throat of each cow! But the herds are carefully examined by inspectors trained to make sure they are in the best of health.

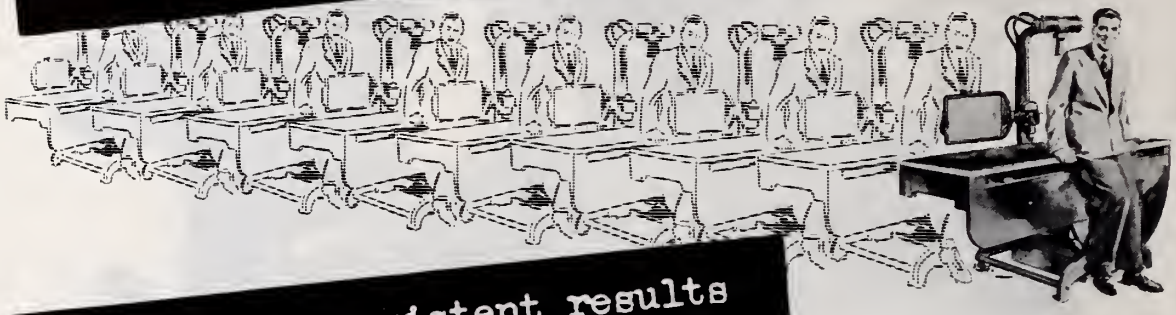
Herd inspection is just one of many careful controls we use to assure that our evaporated milk is entirely safe for your tiniest patient.

Nestlé's Evaporated Milk is uniform in composition, easily digested. Adequate antirachitic protection is assured by the 400 U.S.P. units of genuine vitamin D_3 provided in each pint of Nestlé's milk—the first evaporated milk to be so fortified.

DOCTORS EVERYWHERE KNOW NESTLÉ'S



because it's so easy to use



gives such consistent results



with such trouble-free stamina

there are more Picker "Century" 100 ma x-ray units actively in use than any other similar apparatus.

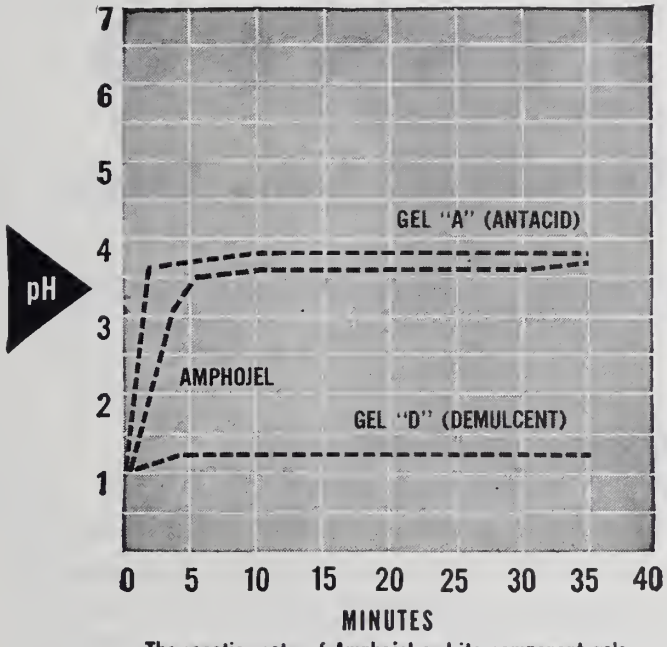


The "Century" owner is a satisfied owner
Let your local Picker man show you why

PICKER X-RAY CORPORATION
300 FOURTH AVENUE • NEW YORK 10

Picker x-ray

PICKER IN NEW JERSEY IS AT 972 BROAD STREET, NEWARK 2, *(Mitchell 2-0482)*



The reaction rate of Amphojel and its component gels.

the double action of AMPHOJEL®

antacid demulcent

Amphojel – Aluminum Hydroxide Gel, Alumina Gel Wyeth – is unique because it is a colloidal mixture of two essentially different types of alumina gel, one having an antacid effect . . . the other a demulcent action.

The "antacid gel" instantly stops gastric corrosion and establishes a mildly acid environment.

The "demulcent gel" provides a prolonged local protective effect, and might be likened to a "mineral mucin."

Thus, through its double action, Amphojel gives you an ideal preparation for use in the management of peptic ulcer.

Wyeth®

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WYETH INCORPORATED, PHILADELPHIA 3, PA.

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Medical Co., Inc.

Service Professionalized

Just Talking It Over . .

We feel a little proud—just like a physician who passes his boards—our company has been honored by the *Hamilton Manufacturing Co.* as distributors of their *furniture.* We have been representing and offering for sale the products of the leading companies in the medical field. The Hamilton line helps to round out and make more complete our professionalized service to the profession. All the high grade and reliable products together with our new air conditioned store makes it pleasant and conducive for you to

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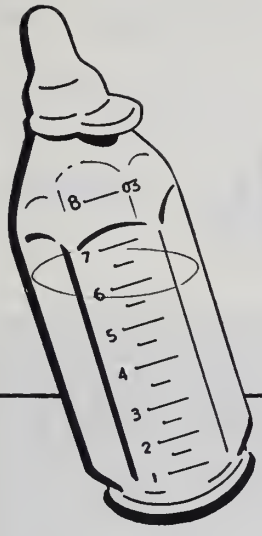
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20 CALORIES *per ounce*

...OR 30...OR 40

Big meals for small stomachs

"It is, at times, necessary to give food of a considerably higher caloric value than would be anticipated. Giving of a food of a caloric value too low to meet the infant's needs is by all odds the chief cause of failure in infant feeding."*

When feedings of higher than normal caloric value are indicated, how simple it is with Similac! You merely increase the amount of Similac powder to be added to each ounce of water. The relation of all the nutritive elements to each other *remains the same* as in normal breast milk. And the Digestive Factor *does not change;* for Similac has a consistently *zero curd tension* like breast milk – even in mixtures of double the normal caloric value.

**Page 51, Infant Nutrition: Jeans and Mariott, 1947.*

One measure (included in each can) of Similac added to two ounces of water makes two ounces of the normal formula—20 calories per ounce.

SIMILAC

Similar to breast milk

SIMILAC DIVISION • M & R DIETETIC LABS, INC. • COLUMBUS 16, OHIO

Announcement

NATIONAL POSTURE WEEK

will be observed this year

OCTOBER 17—22

We make this announcement so early in the year because many hundreds of physicians, surgeons, industrial physicians, health officers and other members of the profession have over the last ten years scheduled the event for May.

The change to October has been made in deference to requests from schools, colleges, adult education groups and community welfare organizations like the "Y's." They now look forward to wider and more effective participation because they can key the event into their health education and physical fitness programs early in the school term, thus avoiding vacation season interruptions.

As National Posture Week enters upon its second decade, it is our privilege to thank the many, many physicians who have given it their approval as a worthy contribution to public health education. We pledge ourselves to carry on in the future as we have in the last ten years with National Posture Week and the daily work of The Samuel Higby Camp Institute for Better Posture. We shall do this to the limit of our resources in accordance with the ethical precepts of the profession.

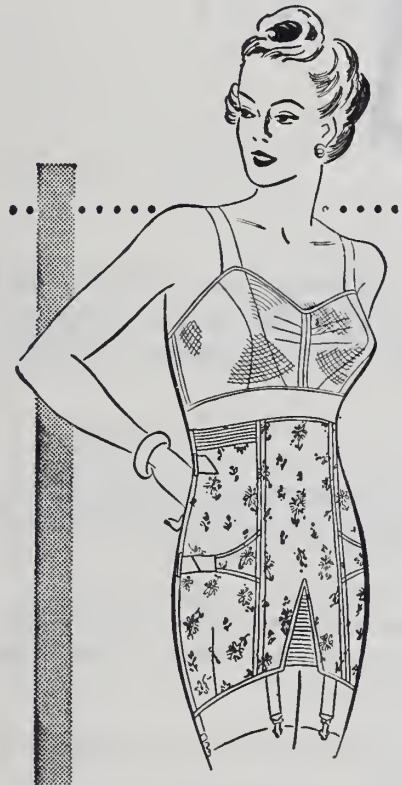
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EAST ORANGE **Open Mon., Wed., and Fri. Evenings**



We gratefully acknowledge the advice and co-operation of many PHYSICIANS in helping us to plan and supply a SUPERIOR SERVICE

Washed Separately — Dried Separately — Packed Separately

- The container we furnish for used diapers sprinkles its soiled contents with an efficient antiseptic solution whenever the container lid is opened and closed.
- All plant operations are carefully supervised. A chemical check is continuously made, and bacteria colony counts of the diapers are run.
- A modern tested diaper supply service for our customer's exclusive use.

- **SAFE**
- **INDIVIDUAL**
- **DEPENDABLE**

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Branch Offices

Passaic County—15 Center Street, Clifton, N. J.
PAssaic 2-9641

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THIS SUGGESTION MAY BE OF VALUE FOR YOUR THROAT PATIENTS:

When cigarette smoking is a factor in throat irritation, many leading nose and throat specialists suggest* to their patients a choice of 3 alternatives:

1. Stop Smoking,
2. Smoke less,
3. *Change to* Philip Morris!

• Philip Morris is the *only* cigarette proved definitely and measurably less irritating!** Perhaps you too will find it worth while to suggest "*Change to* PHILIP MORRIS."... by far the wisest choice for *everyone* who smokes.



PHILIP MORRIS

Philip Morris & Co., Ltd., Inc.
119 Fifth Avenue, N. Y.

DO YOU SMOKE A PIPE? We suggest an unusually fine blend — COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

*Completely documented evidence on file.
**May we send you copies of these published studies:

Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.

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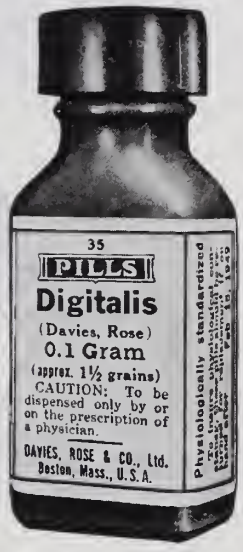
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Pil. Digitalis (*Davies, Rose*)

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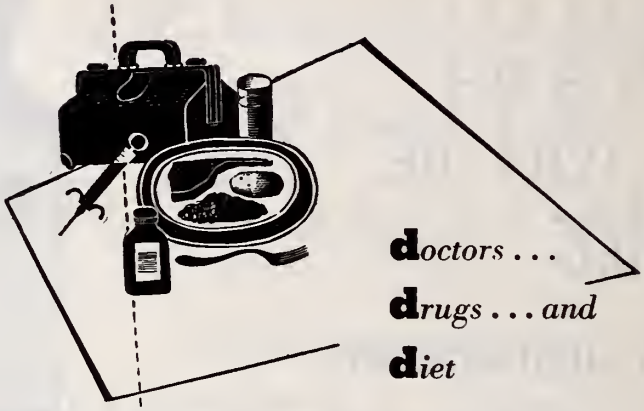
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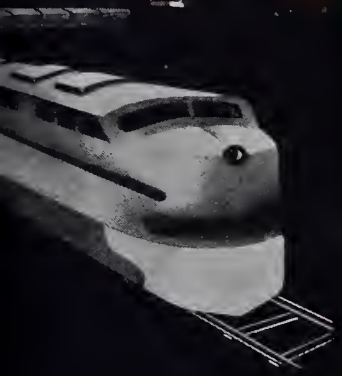
1. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics, New York, Macmillan, 1947, P. 478.

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BIBLIOGRAPHY: 1. Brown, E. A.: Ann. Allergy 6:393, 1948. 2. Wittich, F. W.: Ann. Allergy 6:497, 1948.

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THIS IS JIM NORTON



The 157th President of The Medical Society of New Jersey, James F. Norton, M.D., is known as an obstetrician, medical teacher, football enthusiast and medical statesman. Born in Jersey City in 1892, James Norton received his preliminary education in the local parochial schools. He then attended St. Peters College, receiving two degrees (B.A. and M.A.); and, more recently, a Litt.D. *honoris causa,* which was awarded, according to the citation, "in recognition of Dr. Norton's exemplary service to the community and to the state, both as a leader in medical progress, and as a leader in Catholic Action".

He received his M.D. from Columbia University's College of Physicians and Surgeons in 1918, and entered St. Vincent's Hospital, New York City, for his internship. On completion of this, he ob-

tained a residency in obstetrics at the Sloane Hospital for Women, a choice which significantly shaped his entire professional career. Except for a brief period in general practice, he has devoted himself largely to obstetrics and gynecology and has been hailed as a valiant and effective fighter in the interests of maternal and child welfare.

At the conclusion of his residency at Sloane, Dr. Norton returned to his native city. He married Mary Drye. Dr. and Mrs. Norton have four children—one son and three daughters. One of the daughters is married to Dr. Charles L. Cunniff, now a resident physician at his father-in-law's hospital alma mater.

Dr. Norton's skills in obstetrics resulted in a rapid rise in hospital status. Today he is attending obstetrician and chief of service at the Margaret Hague Maternity Hospital, and attending surgeon and president of the staff at St. Francis Hospital in Jersey City. He is consulting obstetrician at Mary Immaculate Hospital in Jamaica, Long Island, and consultant in obstetrics at St. Michael's Hospital in Newark. He is, of course, a diplomate of the American Board of Obstetrics and Gynecology, and is one of the few New Jersey practitioners to hold high academic rank at a great medical school. Dr. Norton is Assistant Clinical Professor of Obstetrics and Gynecology in the graduate department of the College of Physicians and Surgeons of Columbia University.

Always interested in his fellow practitioners, Dr. Norton has taken an active part in medical society activities. In 1939 he was elected president of the Hudson County Medical Society. Throughout the state, he had been known for two decades for his work in maternal welfare, and he first appeared at the state-level society scene in 1939 when he was named a Trustee of The Medical Society of New Jersey.

Dr. Norton is a member of the New York Obstetrical Society, a Fellow of the American College of Surgeons, a member of the New Jersey Society of Surgeons and a Fellow of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. On the rostrum, he is a forceful speaker with a reputation for knowing the right answers. All of which gives promise of an interesting and vigorous administrative year for The Medical Society of New Jersey.

HEALTH STATISTICS AND HEALTH INSURANCE

The use of statistics to prove a case is an effective promotional device. Somehow it always seems impressive even though we know the ambiguity of statistical findings. Thus the figures on draft rejections were used to "prove" that the health of the American people was bad even though a large proportion of the rejections were for non-medical reasons; and most of the remainder were for static defects (mental deficiency, for instance, or congenital deformities) which would never have been responsive to medical care anyway. Government figures now show the health of the people to be at an all time high, though the same agencies which release the figures are also urging sweeping reforms to overcome "deficiencies" in medical care.

Suppose an impartial observer wanted to measure the adequacy of compulsory health insurance by comparing morbidity or mortality figures. In the first place, he would run into difficulty because no two countries are medically comparable. Even if he were to dismiss this difficulty, he would still find the figures useless. Or, more exactly, he would find the figures malleable to the point where he could prove anything. The Research Council for Economic Security has actually studied health indices, and they offer us a fascinating grab bag of facts from which

(Continued on the bottom of page 229.)

ORIGINAL ARTICLES

THE DIAGNOSTIC DIFFICULTIES OF NON-PARALYTIC POLIOMYELITIS *

Henry Simon, M.D., Dr. P.H., Newark, N. J., Ellis L. Smith, M.D., Belleville, N. J., and Horace O. Bell, M.D., Belleville, N. J.

This is an analysis of difficulties in the diagnosis of non-paralytic poliomyelitis. We have studied the diagnostic problems met at a survey of the 1947 Wilmington [Delaware], epidemic and the difficulties encountered in cases admitted to the Essex County Isolation Hospital. We have selected for discussion sixteen of the most interesting cases admitted to that hospital during the past eighteen years.

Diagnosis of the spinal type of poliomyelitis, where there is definite flaccid paralysis of an extremity and no sensory disturbances, is not difficult. Even if lumbar puncture shows clear fluid, (whether cell count is normal or abnormal) it will not influence the diagnosis. Chief diagnostic difficulties occur with non-paralytic poliomyelitis. The pitfalls in the diagnosis of non-paralytic poliomyelitis are pointed out by the following examples:

The confusion as to what constitutes a case of non-paralytic poliomyelitis was emphasized at Wilmington, Delaware. Ward rounds were made by the senior author during August 1947, at the "contagious unit" of the Wilmington General Hospital. Previous experiences on other hospital wards had shown that 70 per cent of all the cases had some degree of paralysis while 30 per cent showed no weakness. The peculiarity of the Wilmington situation was that of the 30 cases on the wards only two (or seven per cent) showed any flaccid paralysis. These two children showed the classical signs and symptoms of poliomyelitis, with stiff neck, stiff back, loss of knee jerks and flaccid paralysis of both legs. The remaining 28 children showed no paralysis, but did have varying degrees of stiffness of the neck, cervical and thoracic spines and hamstrings, as shown by positive Kernigs. Several children had such marked stiffness of the neck and back that there was no dispute about the diagnosis. However, with other children, serious differences of opinion arose as to whether a neck or back *was* stiff or whether the child was suffering from an upper respiratory infection, with some concomitant stiffness of the neck. It was the opinion of the pediatricians that if any child showed a reddened throat or cervical adenitis, the diagnosis should be "upper respiratory infection" even with a stiff neck and stiff back. An abnormal cell count in the spinal fluid, they felt, might be due to a non-poliomyelitis virus. The Kenny concept of non-paralytic poliomyelitis is one of muscle spasm, which is not produced by tonsillitis, upper respiratory infection or cervical adenitis. This muscle spasm produces the stiff neck, stiff back and spasm of the hamstrings. When the hamstrings go into spasm, the non-paralytic poliomyelitis patient develops a positive Kernig sign. The controversy was heightened when a two-year-old child was diagnosed as "non-paralytic poliomyelitis" by the hospital staff and as "acute tonsillitis" by the visiting pediatricians. It was agreed that non-paralytic and paralytic poliomyelitis could be present with normal spinal fluid findings.

The difficulties in the diagnosis of non-paralytic poliomyelitis were further observed during a visit in October 1948 to the Chicago Municipal Contagious hospital. Dr. Archibald L. Hoyne told us that 70 per cent of the Chicago poliomyelitis cases on his wards in recent years were of the non-paralytic type. Hoyne demonstrated the use of the ventral flexion sign which can be accomplished without touching the patient. In this test, the child sits up, bends the knees and tries to touch the knees with its forehead. If he cannot do this, it shows stiff-

* This is part of a graduate study accomplished at the Department of Public Health, Yale University, by Dr. Simon, of the Newark Health Department. Dr. Smith and Dr. Bell are, respectively, medical director and chief resident at the Essex County Isolation Hospital in Belleville.

ness of the neck and back and indicates possible non-paralytic poliomyelitis.

We were impressed by the necessity of a diagnostic test for poliomyelitis especially in the abortive and non-paralytic types. What is abortive and what is non-paralytic poliomyelitis? How can the general practitioner differentiate between the two types when two such outstanding authorities as Top [1] and Stokes [2] define them differently? Top [1] classifies abortive poliomyelitis as "poliomyelitis which apparently has not gone beyond the systemic phase. . . This type is not often diagnosed because clinically it is not determinable." This appears to mean that the abortive poliomyelitis victim does not have sufficient muscle spasm to produce the characteristic stiff neck and stiff back. On the other hand, Stokes [2] avoids the term "non-paralytic poliomyelitis". He defines abortive poliomyelitis as "the type in which a stiff neck and back are characteristically present". We prefer Top's classification of abortive and non-paralytic poliomyelitis as it ties in more clearly with the concept of the carrier of the poliomyelitis virus. Top recognized the statistical problem confronting health officers when he stated: "If a diagnostic test were available, many illnesses now not diagnosed as poliomyelitis would fall into the classification of abortive poliomyelitis during an epidemic."

DISTRIBUTION OF TYPES OF POLIOMYELITIS
ESSEX COUNTY ISOLATION HOSPITAL
1928-1947

Type	*Number*	*Per Cent of Total*
Non-paralytic	221	28.5
Spinal	381	49.2
Bulbar	129	16.6
Mixed	44	5.7
Total	775	100.0

During the period 1928 to 1947, 221 out of 775 cases were classified as non-paralytic, or 28.5 per cent of the total. No case of non-paralytic poliomyelitis was sent to the isolation hospital with that diagnosis until 1931. Since that time there has been a progressive increase in the number of cases of non-paralytic poliomyelitis admitted. Many a doctor has made the diagnosis on a "healthy clinical suspicion and a lumbar puncture". This "healthy clinical suspicion" is strengthened by a history of exposure, age of the child, season of the year and undue prevalence of the disease. See the table.

CONFUSION OF LYMPHOCYTIC CHORIOMENINGITIS WITH POLIOMYELITIS

Case Report No 1. A three year old boy had a stiff neck, stiff back and fever. Mentality was clear. Lumbar puncture showed a clear fluid, with cell count of 138, mostly lymphocytes; sugar 20 milligrams per 100 cubic centimeters of spinal fluid and chlorides 680 milligrams per cent. A diagnosis of tubercular meningitis was considered, but all tests for tuberculosis were negative. The child developed marked meningeal signs. At the staff conference the clinical opinion was that a diagnosis of lymphocytic meningitis fitted in more closely than that of non-paralytic poliomyelitis, in spite of the season of the year (summer).

Case Report No. 2. A young male adult was admitted in October 1944. He had a persistent headache, no fever, no meningeal signs, no weakness or paralysis. Lumbar puncture showed a clear fluid, with 530 cells, mostly lymphocytes, total protein 110 milligrams per hundred cubic centimeters; sugar was 55. Culture of spinal fluid was sterile. The unusually high cell count and the season of the year were more in line with lymphocytic meningitis.

How do we differentiate lymphocytic choriomeningitis from non-paralytic poliomyelitis? Tice [3] states that poliomyelitis cannot be excluded by the spinal fluid findings. Clinically, the two syndromes may be indistinguishable. However, the chances are that if there is a history of exposure to poliomyelitis and the season fits in with the diagnosis you have a case of non-paralytic poliomyelitis. Lymphocytic choriomeningitis occurs more often in the winter and spring, while poliomyelitis is a summer disease. The best diagnostic criterion would be a test which would permit diagnosis in the acute stage of the disease. A test of this nature is the direct identification of the virus in the spinal fluid or blood or a serologic test which indirectly will detect the virus. These tests are not routinely used even in contagious disease hospitals. It is possible that a serologic test would have to be performed with absorbed sera, as there may be a common group antigen in the virus of poliomyelitis and lymphocytic choriomeningitis. This is inferred from the experiments of Dalldorf and Douglass,[4] who reported that monkeys infected with

1. Top, F. H.: *Handbook of Communicable Diseases*, C. V. Mosby Co., St. Louis, P. 408 (1941).
2. Stokes, J.: Section on Poliomyelitis. Mitchell-Nelson, *Textbook of Pediatrics*, W. B. Saunders Co., Philadelphia, 4th ed., P. 481 (1945).
3. Tice, F.: *Practice of Medicine*, W. F. Prior Co., Hagerstown, Md., 9:278 (1936).
4. Dalldorf, G., and Douglass, M.: Proceedings of the Society for Experimental Biology and Medicine, 39:294 (January 1938).

lymphocytic choriomeningitis resist poliomyelitis virus more than do those who are not so infected. However, this resistance to poliomyelitis virus may be due not to a common group antigen, but may arise from the fact that poliomyelitis virus cannot invade nerve cells parasitized by the choriomeningitis virus.

NON-PARALYTIC SIMULATING PARALYTIC POLIOMYELITIS

Case Report No. 3. This 12 year old boy had a history of weakness of both legs, of four days' duration. On admission, he showed some nuchal rigidity, stiff back, positive Kernig and some weakness of both lower extremities; there was a spasm in both hamstrings, erector spinae and right trapzius. Twenty-four hours after admission, the weakness in the lower extremities disappeared. Spinal puncture showed a clear fluid, with 40 cells per cubic millimeter, 95 per cent lymphocytes, total protein 20 and sugar 45 milligrams per cent. A diagnosis of non-paralytic poliomyelitis is justified in patients having a transitory weakness of one to two weeks' duration, since the entire picture is due to muscle spasm producing incoordination of muscle functioning and hence apparent weakness.

NON-PARALYTIC POLIOMYELITIS SIMULATING MENINGITIS

Case Report No. 4. An eleven year old boy was sent to hospital with a diagnosis of meningitis. There was a history of headache and vomiting. Examination showed nuchal rigidity, spasm of both posterior neck muscles, erector spinae and both hamstrings. There was no weakness or paralysis. Lumbar puncture revealed a clear fluid with 102 cells and 95 per cent lymphocytes, total protein 29 and sugar 50 milligrams per cent. He was discharged in two weeks, completely recovered.

It is very difficult to differentiate the meningeal type of non-paralytic poliomyelitis from early meningitis. The presence of an epidemic of poliomyelitis, the history of exposure and the season of the year should be taken into consideration when formulating a tentative diagnosis.

MUMPS ENCEPHALITIS SIMULATING NON-PARALYTIC POLIOMYELITIS

Case Report No. 5. A six year old boy developed fever, nausea and vomiting. Examination revealed the typical picture of a non-paralytic poliomyelitis. The boy had moderate nuchal rigidity, spasm of the neck, back muscles and both hamstrings; positive bilateral Kernig and Brudzinski. Spinal puncture showed a clear fluid, with 80 cells per cubic millimeter, all lympl ocytes. There was no history of exposure to mumps. Two days later he developed bilateral parotitis and his meningeal symptoms began to lessen. This boy developed a mumps-meningoencephalitis before his parotid glands began to swell.

NON-PARALYTIC POLIOMYELITIS WITH HAZY SPINAL FLUID AND VERY HIGH CELL COUNT

Case Report No. 6. An eight year old girl began her illness with headache and pain in back of neck and lower back. Two days later, on admission, her temperature was 101 and she had moderate nuchal rigidity and slightly stiff back. There was no weakness or paralysis of any muscle. Spinal puncture showed a hazy fluid, with 780 cells of which 86 per cent were polymorphonuclears. Protein was 42. Culture of spinal fluid was negative. One would be inclined to make a diagnosis of meningococcus meningitis clinically, but a hazy spinal fluid and a very high cell count does occasionally occur in non-paralytic poliomyelitis.

SIMULATION OF GRIPPE ENCEPHALITIS

Case Report No. 7. An adolescent boy was admitted in September 1943, with a history of being ill five days with general malaise, "grippy" feeling, vertigo, nausea and drowsiness. He had been treated at home for grippe, but had also been given encephalitis vaccine. Lumbar puncture showed a clear fluid with 119 cells, lymphocytes 92 per cent, total protein 135, sugar 55, and chlorides 750. Physical examination showed marked nuchal rigidity, positive spine sign and no weakness or paralysis. His symptoms cleared up and final diagnosis was non-paralytic poliomyelitis.

INITIAL DIAGNOSIS OF PHARYNGITIS AND TONSILLITIS

Case Report No. 8. In the summer of 1942, there was a small outbreak of poliomyelitis in a low-rent Newark housing development. This 6 year old female lived in the same building with two other cases of poliomyelitis. She complained of headache, vertigo and nausea. Physical examination revealed a temperature of 102 and enlarged tonsils. There was no nuchal rigidity, no spine sign and no Kernig. There was no weakness or paralysis. Superficial and deep reflexes were present, equal and active. The initial diagnosis was acute pharyngitis and tonsillitis, but this was changed to non-paralytic poliomyelitis when the spinal puncture showed 230 white cells per cubic millimeter.

NON-PARALYTIC POLIOMYELITIS SIMULATING SPINAL TYPE OF POLIOMYELITIS

Case Report No. 9. An 11 year old boy visited the housing project referred to in case 8. Nine days later he developed a sore throat and pain in the back. Physical examination revealed an apparent weakness of the upper right arm. The neck was stiff and rigid. Spinal puncture showed 180 cells with 90 per cent lymphocytes. Two weeks after admission, he was transferred to the Hospital and Home for Crippled Children, Newark, for further treatment. A re-examination at this hospital showed no evidence of weakness or paralysis of the upper right arm.

Explanation of this is that there occurred an "apparent weakness" due to spasm of muscles of the right upper arm; when the spasm subsided, the weakness subsided. This weakness cleared up too

quickly to be ascribed to actual destruction of the anterior horn cells supplying these muscles.

HYSTERICAL SPASM CONPOUNDING POLIOMYELITIS

Case Report No. 10. Voluntary or unconscious spasms in major hysteria may produce muscle spasms out of proportion to what is expected in non-paralytic poliomyelitis. A 15 year old female complained of backache, general muscular aches, low-grade fever, headache, stiffness and pain in the neck. Physical examination revealed moderate nuchal rigidity with pain on attempting to flex the head; a stiff back; no apparent weakness or paralysis of any extremity. Lumbar puncture showed 209 cells. After a complete series of hot packs, using the Kenny technic, there was noted the phenomenon of many muscles in spasm, particularly those of the neck, hamstrings, trapezius, pectorals and the gluteal group. Re-examination revealed that the girl was suffering from major hysteria superimposed upon an attack of poliomyelitis. This accounted for the spasm that was not relieved by the hot packs of the Kenny treatment.

MENINGEAL FORM OF NON-PARALYTIC POLIOMYELITIS

Case Report No. 11. In this case, it was deemed necessary to have a New York City Health Department expert on choriomeningitis see the patient before enough confidence could be reposed in a diagnosis of non-paralytic poliomyelitis. The 10 year old male was admitted in September 1941, with a history of having been ill for five days with headache, slight neck rigidity and pain in cervical and upper thoracic spines. On admission he had a temperature of 102.5; there was moderate meningeal irritation, as shown by nuchal rigidity and a Brudzinski. The Kernig was negative. The reflexes were all present and normal except the right biceps which was sluggish. Lumbar puncture showed 314 cells with 95 per cent lymphocytes, a faint trace of globulin. Sugar was 50 milligrams per cent. Final diagnosis was non-paralytic poliomyelitis, meningeal form. The fact that choriomeningitis tends to occur in the winter helped establish the poliomyelitis diagnosis.

NON-PARALYTIC POLIOMYELITIS SIMULATING TYPHOID FEVER

Case Report No. 12. This 15 year old boy was admitted as a "possible typhoid fever". About five weeks before admission, he had been vacationing on a farm in North Carolina where he had been drinking raw milk. He then became ill for five days with severe headache, lassitude, constipation, nausea (but no vomiting) and a temperature between 103 and 105. Physical examination on admission revealed no nuchal rigidity, negative spine sign, tendon reflexes active and equal, Kernig, Brudzinski and Babinski all negative and cranial nerves intact. There was no weakness or paralysis. All laboratory tests for typhoid fever were negative; x-ray of the chest was negative. A lumbar puncture on the third day after admission revealed 300 white cells with 75 per cent lymphocytes, a trace of globulin and sugar 45 milligrams per cent. The final diagnosis was non-paralytic poliomyelitis.

SIMULATION OF APPENDICITIS AND ETHMOIDITIS

Case Report No. 13. A week previous to admission, this 11 year old girl went swimming. This was followed, in two days, by nausea, persistent vomiting and abdominal pain. A local doctor diagnosed this as "possible appendicitis". Two days later she developed headache and the vomiting stopped. Another doctor made a diagnosis of "possible ethmoiditis". Finally neck rigidity appeared and a lumbar puncture showed 166 cells. Diagnosis of non-paralytic poliomyelitis was finally established.

SIMULATION OF MENINGITIS

Case Report No. 14. This was a 10 year old female. Duration of disease before admission was three days with fever, headache and abdominal pain. There was no nausea or vomiting. Physical examination on admission showed a stiff neck, positive Kernig and positive Brudzinski. There was no weakness or paralysis of the extremities. Lumbar puncture revealed a hazy fluid, with 360 cells and 76 per cent lymphocytes. The globulin and sugar of the spinal fluid were normal. Smear and subsequent culture of the spinal fluid were negative for organisms. Due to the hazy spinal fluid, anti-meningococcus serum was given intraspinally on admission.

The final diagnosis was non-paralytic poliomyelitis. It must be remembered that occasionally a hazy fluid will occur with poliomyelitis.

CENTRAL NERVOUS SYSTEM SYPHILIS SIMULATING POLIOMYELITIS

Case Report No. 15. A 42 year old white male was admitted in September, 1944, with a history of illness of four days' duration. Chief complaint was headache and stiffness of the neck and back. He had moderate rigidity of the neck and back; spasm of both sternocleidomastoids; spasm of the right pectoralis major and right latissimus dorsi, both hamstrings and both quadriceps muscles. Kernig was positive but Brudzinski was negative. There was no weakness or paralysis. He was diagnosed as a non-paralytic poliomyelitis. Lumbar puncture showed a ground-glass fluid, with 316 cells per cubic millimeter and 84 per cent lymphocytes. He was given hot packs and his spasms were relieved.

This patient was subsequently found to be under treatment for cerebrospinal syphilis. The final impression of the staff was that syphilis had been confounded with non-paralytic poliomyelitis.

RUPTURED ANEURYSM SIMULATING POLIOMYELITIS

Case Report No. 16. A 7 year old boy was admitted to the isolation hospital in June 1947, with a tentative diagnosis of non-paralytic poliomyelitis. Duration of disease before admission was eight days. Illness began with headaches, followed by pain in the neck. Fever had varied from 100 to 101 with occasional vomiting.

Physical Examination: Moderate nuchal rigidity and a positive spine sign. There was no weakness or paralysis of the extremities. There was a positive

Kernig and a positive Brudzinski sign bilaterally. All reflexes were present and hyperactive. Positive tache cerebrale was noted.

Lumbar Puncture: Clear spinal fluid, with cell count of 54; trace of globulin and sugar 60 milligrams per cent.

Muscle Spasm Examination: There was spasm of the posterior neck muscles. The child was unable to flex his head. Left upper trapezius was spastic. Hamstrings both legs, adductors left leg, gluteus medius left leg, tensor fascia lata left leg and abdominals on the right side were spastic.

Treatment: Child was given the Kenny treatment for poliomyelitis, using hot packs every two hours (five times daily) to neck, back, left shoulder, abdomen and thighs. The nuchal rigidity became markedly pronounced on the third day after admission to E.C.I.H. The child almost assumed the position of opisthotonus. Another spinal tap was performed and a uniformly bloody spinal fluid, with supernatant xanthochromia was obtained. Ophthalmoscopic examination showed papilledema. The diagnosis was changed to subarachnoid hemorrhage. The patient became lethargic, sleeping most of the time, with head cocked back and complaining of headache. His condition became progressively worse and he died one week after admission.

Autopsy Report: The dura was tense. The cerebrum showed flattening of the convulutions. There were scattered areas of hemorrhage under the pia arachnoid. There was a large amount of blood clot in the chiasmal cisterna and in the posterior fossa surrounding the medulla. The ventricles were slightly enlarged and filled with bloody spinal fluid. There was a ruptured aneurysm of the right vertebral artery at the junction with the basilar artery. This aneurysm measured one by ¼ inches, and arose anteriorly to the medulla and midbrain.

Sections from the lower medullary area showed no evidence of any inflammatory reaction in this region of the cord. The autopsy diagnosis was ruptured congenital aneurysm of right vertebral artery.

During the first two days of hospital stay, the clinical picture fitted in so closely with that of non-paralytic poliomyelitis that the child was given the Kenny treatment. A routine ophthalmoscopic examination would have shown the swollen optic disk and revealed the value of such a procedure in suspected poliomyelitis cases. The lesson is that the syndrome of non-paralytic poliomyelitis closely resembles the early stages of a congenital aneurysm that has weakened and is rupturing.

SUMMARY

Controversy as to the diagnosis now exists more in the field of abortive and non-paralytic poliomyelitis than with other types of poliomyelitis. Statistics on non-paralytic poliomyelitis should be viewed with suspicion by all health officers. A case will be diagnosed as non-paralytic poliomyelitis in the summer and the same case diagnosed as an upper respiratory infection, or choriomeningitis in the winter. During epidemics, the general practitioner is likely to call too many cases non-paralytic poliomyelitis and to report them to the health department with the inevitable error in our morbidity and case fatality rates. On the other hand, in endemic periods, cases of non-paralytic poliomyelitis are likely to be missed and not reported. The accurate diagnosis of non-paralytic poliomyelitis awaits the perfection of a serologic test, available in the acute stage of the disease.

HEALTH STATISTICS

(Continued from page 224.)

we can pull any conclusion we want. For example, in 1938, New Zealand and France had compulsory health insurance programs, and the United States did not. Infant mortality rates for the three countries were, respectively, 35, 66, and 51. This proves: (a) Compulsory health insurance reduces infant mortality because the rate was 35 in New Zealand compared to 51 in the U. S. A.; or (b) Compulsory health insurance means poor health, because the infant mortality rate was 66 in France compared with 51 in the United States. If you used tuberculosis rates, you would get a similar set of figures. How about life-expectancy? The health-insured French republic (pre-war) had a male life expectancy, at birth, of 56; in the U. S. A. it was 62; in New Zealand it was 65½.

Actually these figures *do* suggest something. They indicate that climate, nutrition, and general living standards show a much closer correlation with morbidity and mortality rates than do methods of distributing medical care.

Government efforts at improving health standards would be more effective if directed towards improvement in housing, nutrition, education and living conditions generally. Improvement in medical technics can safely be left to the medical scientist.

HEMOCHROMATOSIS: A CASE REPORT*

Hilton S. Read, M.D., F.A.C.P., Levi M. Walker, M.D., and
Clarence B. Whims, M.D., Ventnor, N. J.

A 51 year old hotel manager, a former long distance runner, who had been gassed in World War I and for years was exposed to the occupational hazard of alcoholic hospitality, was first seen by us on June 10, 1948.

For ten years he had been treated elsewhere for hepatic cirrhosis. On February 17, 1947, following ten days of malaise and twenty-four hours of severe abdominal pain associated with leucocytosis and fever, an appendectomy was performed. The surgeon's post-operative diagnosis was acute suppurative appendicitis; the pathologist's—catarrhal appendicitis. The surgeon noted "atrophic and portal cirrhosis" at the time of the operation. The urine was free of sugar. The blood count was normal. He left the hospital on the sixteenth day without additional investigation.

Eight months later he noted polydypsia, polyphagia and loss of weight. After two months of mounting suspicion, he consulted his medical advisor who discovered hyperglycemia with glycosuria. Physical examination was not remarkable except for hematomegaly. Although he complained of dimness of vision, the retinal vessels were reported as normal by the ophthalmologic consultant. He was rehospitalized for four weeks of vigorous attempt at chemical balance of his diabetes by diet and insulin, incorporating the presently accepted anti-cirrhotic regime. On this program he gained fifteen pounds but demonstrated extreme lability of his blood sugar.

Four months later he presented himself at The Ventnor Clinic complaining of impotence, mental depression, morning nausea, loss of weight, and fatigability. His anxiety was chiefly over the "future". His favorite pastime was to bet his friends he would not be alive "at Christmas 1948". His chances of winning are fair at the moment.† This patient says he was always a very fussy eater, and that despite (or because) he lived in hotels, his diet was never adequate.

He was 65 and ¾ inches tall, weighed 129 pounds, had a blood pressure of 116/76 and typical cirrhotic facies. Quoting from the original notes the physical examination continues, "This is a thin, pale, cheerful, undernourished male. He is not in acute distress, but appears chronically ill. He seems to have lost a large amount of weight. He has a small skeletal system. His muscles are flabby, loose and soft. There is complete loss of hair over the chest, shoulders and axilla. The pubic hair is diminished. The skin is thin and there is a generalized blue-bronze pigmentation, more marked on the face and hands. The face has a pinched expression with a thin parchment character to the skin. There is a loss of elasticity of the skin. It is dry. A few vascular spiders are noticed on the face, neck and on the upper chest. Mucous membranes are normal. There is mild engorgement of the superficial veins of the thorax. This is not noted on the abdomen. There is moderate accentuation of the first mitral sound. A short presystolic murmur is heard both in the erect and left lateral positions. The vital capacity is 103 per cent. The upper limit of the liver dullness is in its normal position. The lower edge of the liver is felt at the level of the umbilicus in the mid-clavicular line. It is firm and smooth with a sharp edge. The spleen is palpable on deep inspiration. The penis justifies the patient's description of 'shrunken'. The testes are small, soft and flabby."

Electrocardiogram showed sinus arrhythmia and myocardial impairment, with small Q waves in the limb leads and low voltage T 1 with inverted T 2, 3 and 4.

X-ray revealed considerable widening of the aortic shadow but otherwise the cardiac silhouette was normal. The esophagram was negative for evidence of varices. Cholecystogram failed to visualize the gallbladder. There was no evidence of sclerosis of the pelvic, abdominal or leg vessels.

The Mazzini was negative. Red blood cells numbered 4,140,000, the white cells 8,850, and hemo-

* Read before the Section on General Medicine of the Philadelphia College of Physicians, November 22, 1948.
† This was written November 22, 1948.

globin 14.7 Grams. Platelets were 200,000, hematocrit 44 per cent, prothrombin combining power 80 per cent of normal, and sedimentation rate 21, Wintrobe method corrected to 17. Fasting blood sugar was 360. The cephalin-cholesterol flocculation test was 2 plus at 48 hours and the brom-sulphalein test showed 1.8 per cent retention at forty-five minutes using the 5 milligram technic. The urine concentration was 1.013, 1.015 and 1.015.

He was hospitalized by us from June 26 to August 7, 1948. Examination of the urine was repeatedly negative for hemosiderin and positive for sugar. A skin biopsy was reported to show "iron deposit in the skin consistent with hemochromatosis". It was very difficult to get him to eat. We attempted to include 250 Grams of carbohydrates, 120 Grams of protein and 60 Grams of fat, divided in four feedings each day, but the best daily intake was 180 Grams of carbohydrates, 120 of protein and 100 of fat. He required demerol with fair frequency for abdominal pain. The insulin requirement varied from twenty-five to forty-five units of protamine zinc insulin reinforced with twelve to thirty-two units of regular insulin. Testosterone was ineffective as far as influencing his symptoms or physical findings. Following the August discharge from the hospital, his course was rugged. He took matters largely into his own hands as far as the diet went, gave up protamine zinc insulin and ran his regular insulin dosage on the results of "Clinitest" examinations. He was fairly consistent with his insulin dosage of forty units of regular insulin each morning, followed by sixteen before lunch, and sixteen before the evening meal.

On November 9, 1948, he was seen because of apprehension about his chest. His brother had recently died of carcinoma of the lung. The patient had a great deal of pain in his chest and excessive cough with a "foul, green, profuse sputum". Physical and x-ray examinations of his lungs were negative. His liver size had diminished halfway to the costal border from its previous level to the umbilicus. Eye grounds were normal. There was no radiologically demonstrable vascular-sclerosis, or change in his cardiac silhouette. He was obviously fibrillating. It took two days' argument to get him in the hospital, during which time the administration of 1.2 milligrams of digitoxin as the initial dose, plus 0.2 milligrams twice a day failed to restore normal rhythm. This was restored by the administration of nine grains of quinidine in the first six hours of hospitalization. Two days later he insisted upon going home and has continued to freelance it since.

Hemochromatosis, first described by Trousseau in 1865, is a relatively rare disorder of iron metabolism, occurring predominantly in middle-aged men, characterized by the clinical triad of hepatomegaly, diabetes and skin pigmentation, with characteristic symptoms including impotence, loss of pubic and axillary hair, testicular atrophy, increased weakness, fatigability, loss of weight and strength, and abdominal distress.

The most authoritative word on this is Sheldon's [1] 1935 monograph. Three hundred and eleven cases of hemochromatosis had been reported up to that time. Little has been written since then, except Chesner's excellent case report [2] of a fourteen year old boy with hemochromatosis without pigmentation of the skin or diabetes, but with hemosidero fibrosis of the liver and pancreas and generalized hemosidero-portal-cirrhosis of the liver. In this paper is incorporated an excellent review of the subject. Other informative articles were by Butt and Wilder [8] from the Mayo Clinic in 1934 and Mallory's[11] work in 1920. In 1945 Gillman and Gillman [3] presented a thesis opposed to Sheldon's emphatic view that the disease is "an inborn metabolic error". On the basis of liver biopsies in patients with pellagra, they conclude that hemochromatosis is one of the more common sequelae of pellagra, and that this is a profound disturbance of intra-cellular metabolism related to some forms of malnutrition in which hemosiderin and hemofuscin pigments are formed in association with changes in the mitochrondia ultimately leading to their destruction. Further observation of their's on patients who died a sudden death, lead them to believe that hemochromatosis is a common disorder in Africa, attributable to the inadequate diet of the natives.

Sheldon supports his theory of "inborn metabolic error" and dismisses eloquently eight other theories of etiology; namely, that the diabetes is the primary phenomenon, that the liver is a primary factor, that it is due to the destruction of blood, that it is caused by the action of toxins, including Mallory's ideas on copper, that the suprarenal is the factor, that the reticulo-endothelial system dysfunction of hemoglobin metabolism is a factor and finally Rosenthal's idea that the primary change in the disease is an inability to reduce ferric iron to ferrous, which is the only form in which the body can utilize it.

Experimental attempts to reproduce hemochromatosis by repeated transfusions or by

hemolytic agents or by injection of hemoglobin or dialized iron have not been successful. Kilduffe and Debakey [4] state that patients who receive transfusions over a long period of time, sometimes develop hemochromatosis; but they give no details. Others experienced in the consequences of blood transfusion would not generally accept such a relationship.

Alexander Marble, who was good enough to send me the manuscript he has prepared on hemochromatosis for the new edition of Oxford *Loose-leaf Medicine*, quotes Finch and his associates as reporting that there is abnormal absorption but normal storage of iron in the disease. They have been unable to find any mechanism for excretion of excess iron from the body either in a normal person or one with hemochromatosis. They believe that, perhaps, a determination of the iron binding power of the blood serum and the degree of its saturation may prove helpful in diagnosis.

Karsner [5] states that one out of two to three thousand persons with diabetes shows hemochromatosis. Marble and Bailey [6] found twenty-four cases proved either by autopsy or skin biopsy among 21,500 diabetics. In addition they found thirteen others with the classical triad but negative skin biopsy; and they point out that skin biopsies may frequently be negative.

In 1940 Joslin [7] reported that of the 5669 surveyed diabetic deaths, twelve had hemochromatosis, eight had pernicious anemia, twenty-six died of suicide, twenty-six of cirrhosis and 78 of accidents. John reported one out of 4491 diabetics had hemochromatosis. Butt and Wilder [8] found thirty cases at the Mayo Clinic in fifteen years. Marble cited one patient who died seventeen years after the diagnosis had been established. Sheldon states the average life expectancy is 18½ months after the diagnosis.

In Sheldon's 311 cases only 13 were females; and of Marble and Bailey's 24, two were females. Sheldon points out that it takes a long time for sufficient iron to accumulate to the point of producing symptoms. He reported the earliest fully developed disease was at age 20, but states that the average age is 40 to 50.

Pigmentation was the first symptom in 26 per cent and was found in a total of 84 per cent of his patients. Butt and Wilder reported it as the first symptom in 40 per cent of their series. Others have emphasized that a certain number of patients may not show any skin pigmentation at all, and that as many as 75 per cent of the early cases have no evidence of bronzing.

Diabetes was the first symptom in 26 per cent of Sheldon's series and accompanied 70 per cent of his cases and 86 per cent of Butt and Wilder's. An enlarged spleen was found in 60 per cent of the cases. It was the first symptom noted in Chesner's fourteen year old patient. Sheldon found only six patients with a red blood cell count below 2.5. The anemia associated with hemochromatosis has been observed by many authors and the combination has been considered more than accidental by Zeltmacher and Bevans. However, their cases and those of Clark, Sturgis, Mackey, and others, were of the aplastic type. Repeated transfusions (in Sturgis's case 137) may have accounted for the hemochromatosis. Sheldon in his 311 cases found no evidence of increased hemolysis, nor did he find any evidence of the action of toxins. Most writers seem to support his opinion.

Labbe in 1934 was quoted by Butt and Wilder as saying that our failure to recognize atypical cases (in which atrophy of the genitals and loss of hair accompanied the more usual findings) accounted for the infrequency of the diagnosis.

Hemochromatosis will be suspected from the history of pigmentation, the hepatomegaly and the presence of diabetes; but can be verified only by the demonstration of abnormal amounts of intracellular iron. Skin biopsy offers the best method. The biopsy should be from a section of skin not affected by stasis of the blood, or from the groin or axilla or from any other part of the body where normally small amounts of iron pigment may accompany large amounts of melanin. Liver biopsy carries a higher than usual danger in these patients. Attempt may be made to demonstrate, as we did, hemosiderin in the epithelial cells of the urinary sediment and an intradermal test has

been suggested by Fishback, but it is not generally helpful.

The increasingly optimistic view of cirrhosis in general, as the result of the new technics of treatment, is not altogether appropriate with regard to pigment cirrhosis. True enough, insulin is helpful and patients may require from none to 1600 units, according to Marble; but the outlook in general is rather grim. Traissac has said that the bronze diabetics do not show an increased resistance to insulin; but the effect of insulin is slowed down and prolonged, and during a manifest diabetes (contrary to the ordinary form) the anatomic deviations run parallel with the seriousness of the disease.

The pancreas is not a static organ unable to repair itself after injury like the brain and myocardium. Thus hemochromatosis gives an excellent opportunity to study the assumption that continued injurious action on the organ by the causal agent, eventually overcomes the regenerative efforts. The known injurious agent is hemofuscin, a breakdown product of hemoglobin deposited in the various organs and slowly changed to hemosiderin. Eventually the accumulated pigment causes necrosis of the cell containing it. The liver is the first site of deposit, but as its cells become filled, it "overflows" into other organs; for example, the pancreas. The resulting diabetes does not differ at all from diabetes mellitus except that the course is more rapid. Here then, we have an ideal means of studying human diabetes with a known etiology and a rapid course.

Dr. R. D. Lawrence, himself a diabetic of 26 years' duration has said [10] that hemochromatosis, or bronze diabetes, was a very rare form of diabetes, due to a direct attack by fibrous tissue on the islets of Langerhans of the pancreas and its insulin productive capacity. He suggested that it might serve as a focal point for analyzing the effect of diabetes and its production of complications; namely, arterio-retinal hemorrhages, high blood pressure and arteriosclerosis. He thought it was important that all the cases be reported in an effort to assist this analysis. In the forty cases that he had had under his personal observation, he had never seen any of the vascular diabetic complications in the eyes, feet or kidneys. He thought it important because if these people did not develop the diabetic complications, even though the diabetes was severe and they were just as uncontrolled in their sugar as non-cooperative diabetics, then we would have to look for some other factor than merely the high blood sugar, cholesterol, or the ketosis. We would then have to look for the factor that produces not only the diabetes, but the complications. But if the complications do ensue, emphasis would be given to Joslin's discipline and would indict the free dieters of the Tolstoi School.

I recall Doctor Thomas McCrae's restrained announcement to our class twenty-five years ago of a new control for diabetes mellitus. Three years later, it was my duty as an assistant chief resident at the Philadelphia General Hospital to activate the metabolic ward for Dr. Petty and Dr. Stoner. Then for fifteen clinically complacent years, years of therapeutic smugness, diabetics were "easy" to control by establishing a diet-insulin balance. With each succeeding year of research casting increasing physiologic doubt on the pancreas as the only etiologic culprit, such control becomes more annoyingly vexing. The patients seem to keep their physiology pathologically tuned to the literature. The difficulty of treating hemochromatosis, therefore, parallels the difficulty of treating diabetes mellitus.

If the study of hemochromatosis offers one whit of solution to the booby traps of diabetes mellitus, case reports like this will not have been in vain.

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CARCINOMA OF THE CERVIX*

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Dr. Levinson: Carcinoma of the cervix has not been a common disease at the Newark Beth Israel Hospital. During the six-year period ending in 1944, only sixty cases of primary cancer of the cervix were admitted to this Tumor Clinic—an average incidence of ten per year. In comparison, note that the New York Memorial Hospital reported an average of 184 cases per year. However our sixty patients were treated by the same technic and by the same staff physicians, so that we do have a reliable index of the effectiveness of radiation therapy in carcinoma of the cervix when administered in a tumor clinic associated with a general hospital.

This report is based on a three-year follow-up and therefore should be considered only as a preliminary survey. Of the sixty consecutive patients reported in this survey, fifty-four were ultimately traced. The six missing patients (and those alive with recurrent disease) were classified as "deceased" in this report for statistical analysis.

In 1943, Healy and Twombley of the Memorial Hospital reported on 925 cases of cancer of the cervix. Most of these patients were married women who had borne children. In spite of the large Jewish population attending the clinics of the Memorial Hospital in New York City, only five per cent were Jewish. In our own series, seventy per cent of our patients were between 30 and 50 years of age. There were only two Jewish patients out of a total of sixty individuals, an incidence of 3.3 per cent.

Carcinoma of the cervix, at present, is still treated, in most cases, by radio-therapy. The treatment of cancer of the cervix in this clinic before 1938 consisted of large doses of low intensity radium therapy. We utilized the Curie technic as modifed by Dr. Ira Kaplan. This consisted of uterine sound and colpostat containing between 70 and 100 milligrams of radium for 80 to 100 hours, for a total of 6000 to 8000 milligram-hours. In some instances we used preliminary external deep roentgen therapy directed to the pelvis. At times this was administered following the insertion of radium. The preliminary roentgen therapy, at that time, was utilized in small doses chiefly to localize the infection of the cervical tissues and to minimize the hazards of infection following radium insertion. Before the utilization of the anti-biotics, this was a grave complication in four per cent of our patients undergoing radium treatment in cancer of the cervix.

Since 1938, we have recommended intensive preliminary roentgen therapy directed to the parametrium through four pelvic fields, except in very early cases of carcinoma of the cervix. Our technic, at present, consists of an average dose of 2000 roentgen, as measured in air, of high voltage x-ray therapy administered through two anterior and two posterior pelvic fields. We have not utilized the lateral pelvic portals advocated in other clinics. Lateral portals are being discontinued in most clinics because of the subsequent reports of pathologic fractures of the hip following this technic. Purpose of the preliminary roentgen therapy is chiefly to augment the amount of radiation delivered to the parametrium, to clean up the infected cervix, and to facilitate the subsequent insertion of radium.

The usual series of high voltage x-ray treatments is administered over twenty-four days. After the completion of the x-ray therapy the patient is admitted for radium insertion within two weeks. A longer interval of time results in fibrosis and difficulty with the insertion of radium. The method of radium therapy is similar to that mentioned above; that is, a modified Curie technic. Average dose now used is between 6500 and 7000 milligram hours, delivered over a period of approximately four days, representing 4000 milligram hours intrauterine, and 3000 in a vaginal colpostat.

* This is the first part of the 1948 Tumor Conference, Newark (N. J.) Beth Israel Hospital. In early issues the other two parts will be released. These are (2) Cancer of the Lung with Skin Metastasis by N. J. Furst, L. Scovern and H. Quittner, and (3) Malignant Melanoma by Samuel Roth, Jack Bleiberg, William Antopol and Andrew Rados.

† B. Levinstone, surgical resident, collected and analyzed the pathologic data for this survey.

The changes in both malignant and normal tissues as a result of radiation therapy depend not only on the total dose but upon the period of time over which the dose is spread. We have found that optimum time for administration of our radium dosage is 96 to 100 hours. When the total dose was administered in a much shorter period of time, complications, (such as local vaginal necrosis and ulceration of the adjacent bowel) occurred in some cases. The tolerance of the interior of the uterine cavity is phenomenal and doses of between 20,000 and 30,000 gamma roentgens can be safely given at the surface of the intrauterine sound within about 100 hours. However, the vaginal mucosa is somewhat less tolerant and 12,000 gamma roentgens should be considered the upper limit of tolerance. Experiments have shown that a dose of 6000 gamma roentgens if delivered throughout a tumor-bearing zone causes permanent resolution of the great majority of epidermoid carcinomata. This figure may therefore be taken as a serviceable *in vivo* "tumor lethal dose". Experience with skin and normal tissue shows that this dose can be given to the whole of an accessible tumor of moderate size without permanent destruction of the adjacent normal tissue.

The problem in radiation therapy of carcinoma of the cervix is not that of the eradication of the disease in the cervix itself. The technic now available enables us to administer at least ten T.E.D., 10,000 gamma roentgens, to the cervical lesion, a quantity sufficient to destroy the local lesion in practically every instance. However, three centimeters from the cervix, the dosage drops sharply, and at this point the radium dosage is insufficient to eradicate carcinoma. If the disease is therefore localized within a zone of about six centimeters in diameter, our treatment is effective in destroying and controlling cancer of the cervix. The compromise treatment of cervical cancer must, therefore, consist of: (1) an attempt to destroy the primary lesion, (2) the administration of an inhibitory dose of high voltage x-rays to the entire pelvis in an attempt to block off extensions. To improve the dosage in the parametrium, various methods are now being advocated: (a) interstitial platinum radium needles as advocated by Waterman and Pitts or (b) transvaginal preliminary x-ray therapy now being used in such centers as Memorial Hospital and University of Pennsylvania. Transvaginal cones are too recent to evaluate at present. Waterman and Pitts have improved their five year survivals by the use of interstitial radium needles delivered to the parametrial structures. However, this method is not without its hazards. They have reported 8 per cent rectovaginal fistulas in their series. In 1942, Meigs revived the radical Wertheim operation. This operation is applicable in only about 15 per cent of patients who have cancer of the cervix, namely, early selected cases. The advantages of this procedure will be discussed by Dr. Brams.

In our sixty cases, three patients developed severe post-radiation infections. One of these died as a result of pelvic peritonitis in spite of the use of sulfa drugs. Penicillin, at that time, was not available. The immediate operative mortality rate in this group was 1.7 per cent. One patient in this group, alive and well, was also pregnant at the time the carcinoma of the cervix was discovered. A caesarean section was performed and the patient was then treated by the usual course of x-ray and radium therapy. None of our patients developed fistulas as a result of the radiation therapy. There was no definite correlation between the pathologic type of the lesion and the percentage of cures. The clinical stage of the disease seems to be the most important factor.

	Stage I & II Early cases	Stage III & IV Late cases	Ca of Stump	Total
Total No.	30	23	7	60
Alive	16	5	2	23
Deceased, Missing	14	18	5	37
3 Year Survival	53.3%	21.7%	28%	38.3%

TABLE ONE
RESULTS IN TREATMENT OF
CARCINOMA OF CERVIX

STATUS OF SURGERY

DR. BRAMS: My report on the surgical aspects of carcinoma of cervix must of necessity be a survey of what is being done in the various

clinics here and abroad, since the work at our hospital has been practically nil.

Prior to the advent of radium, a surgical procedure was the only treatment available for carcinoma of the cervix. The surgeon's problem was to decide which cases were suitable for operation, and which were suited for only palliative treatment. The patient that was young and thin, with involvement of the cervix only or with slight infiltration of the vagina or broad ligament, and with no constitutional disease, was selected. In other words, her local condition had to offer a reasonable chance for cure and her general condition had to give fair assurance that she could endure the rigors of a procedure that at best was attended by a high mortality rate. As could be expected, the immediate mortality rate in those days was high, depending both on the extensiveness of the operation and on the surgeon's soundness of judgment as to a patient's operability. The master surgeon of this area, Dr. Wertheim (who developed the operation that bears his name) had a mortality of 12 per cent. Other surgeons reported mortality rates up to 25 per cent. The patient who made an immediate recovery was subject to the numerous complications of bladder, ureter and intestines, that were concomitants of this operation.

With the advent of radium, the treatment of carcinoma of the cervix changed. Surgeons noted that patients deemed inoperable were kept alive for longer periods of time, and occasionally cured. Some who had been considered good candidates for surgery were then irradiated and found to give as good or better end results, without the tremendous immediate mortality or morbidity. Gradually the picture changed. The mortality dropped to one or two per cent; the distressing after-burns and fistulae (that attended the earlier use of radiotherapy) were reduced to a minimum by the refinements of radiologic technics. Irradiation has become overwhelmingly the procedure of choice in most cancer centers.

Nevertheless in a few clinics, an occasional patient in the stage one group is still being operated upon, because of the occasional finding of cancer cells in biopsied cervical tissue that had been subjected to x-ray or radium. Bonney reported a huge series of Wertheim operations with five year cure rates that compare favorably with radio-therapy; but his immediate mortality rate ranged between 9 and 14 per cent. The outstanding exponent in this country of radical surgery of carcinoma of the cervix is Meigs,[1] who in 1947 reported 91 cases without an operative death. His cases are carefully selected, averaging only 10 per cent of those who appear at his clinic. They are all young and thin, good surgical risks, with a growth that involves only the cervix, or with only slight spread to the vagina. Patients with definite pericervical infiltration are not operated upon. He stresses the radical and formidable nature of this operation, a procedure that consists of removal of all lymph channels and lymph nodes, the removal of at least half the vagina, all of the parametrium, the posterior cul-de-sac and the supporting ligaments and muscles of the vagina. He advises that even the competent surgeon should view this operation performed by one proficient in this involved technic, before attempting it. His results are too recent to publish five year cure rates. The three year results are promising.

Novak[2] in a comprehensive study and analysis of uterine cancer, called attention to a trend in some clinics to combine surgery with irradiation in the stage one cases, but no definite plan of procedure has been evolved, either in the amount and time of radio-therapy or in the type of surgical procedure to be done. He emphasizes the small proportion of cases where radical surgery is justifiable and states that, in many excellent clinics, there are no exceptions to radio-therapeutic measures. In his own clinic only an occasional patient is subjected to radical surgery.

Te Linde[3] has analyzed and compared the five year results of Bonney's radical abdominal hysterectomy, Peham and Amreich's radical vaginal hysterectomy, and Ward and Sackett's irradiation results. He states:

"On the basis of the evidence at hand, we have nearly abandoned the operative treatment of cer-

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vical cancer, with the exception of the microscopic lesions, and treat all our cases with a combination of x-ray and radium treatment. We have failed to see in the statistics of those who employ a combination of surgery and irradiation any advantage in the combined methods as a routine procedure."

Masson and Judd[6] reported on 2179 cases. They feel that a selected group of cases justify operation of the Wertheim type, but again emphasize the small proportion of the entire number.

Commenting on Dr. W. P. Given's statistical analysis[4] of 212 cases, Novak states, "The plan of treatment employed in all cases was radio-therapy, only a few being treated surgically, and this is in conformity with the trend in all clinics."

The procedure of Wertheim hysterectomy with extensive pelvic and gland dissection, as advocated by Meigs (not the so-called Wertheim operation, which is little more than a total hysterectomy) is applicable to a very small proportion of cases. Only surgeons in the tremendously large clinics can master the technics sufficiently to avoid the excessive mortality and morbidity that the occasional operator would experience. Our hospital, for instance, is a fairly large institution with a good tumor department; yet only one or two cases per year would be suitable candidates for this type of surgery.

This quotation from H. S. Crossen[5] seems best to appraise the present status of surgery in cervical cancer therapy:

"Despite the variety of all classifications used and the consequent difficulties of critical comparison of results from operation and irradiation, there is already apparent a definite statistical balance of cure-rates in favor of irradiation; and that is only part of the story. The radical operation has been developed practically to its limit, while irradiation is young and still developing rapidly. And, finally, when depending on radical operation it is necessary in even the earliest case of cancer of the cervix to subject the patient to a very grave risk, whereas with irradiation the patient is given a better chance of cure wih much less risk in all stages."

		Survival Radium Alone	Survival Radium & X-ray Therapy
1926	Healy	22.5% (5 year)	
1937	Healy & Twombley		163 cases—36.1% (3 year)
1929–1940	G. E. Richards (Toronto)		862 cases—43.9% (3 year)
	Gross Survival Nodeductions		862 cases—35.6% (5 year)
1943	Healy & Twombley		920 cases—35.4% (5 year)
1939	Meigs & Jaffee		70 cases—34.4% (5 year)
1945	Waterman & Pitts		127 cases—39.3% (5 year)
	Waterman & Pitts		Radium needles & X-ray
1938–1944	Levinson & Brams		60 cases—38.3% (3 year)

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4. Given, W. P.: American Journal of Obstetrics and Gynecology, 53:947 (November 1947).
5. Crossen, Harry S., and Crossen, Robert J.: *Diseases of Women*. C. V. Mosby, St. Louis (1944).
6. Masson, J. C., and Judd, D. E.: Journal of the Mt. Sinai Hospital, 14:483 (September 1947).

ONE HUNDRED YEARS AGO

FROM THE 1849 TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY: "Your Committee respectfully solicits the aid of their medical brethren in a close investigation of the cause of malarious diseases. The various theories as to the cause of malaria, though at times they have met with general professional acceptance, have failed to satisfy the inquiring mind of their validity. We find marshy districts in some regions rife with fever; in others, diseases affect salubrious locations, where we would suppose, miasma could not reach. It has been noted that in seasons of protracted drought, there have been a great variety of mushrooms, different from those which spring up a few hours after a rain. In pestilential years, when the disease has stalked at noonday and stricken down the high and low alike, there has been noticed an appearance of moulds and mildews. We should all be carefully engaged in this fruitful field of research and gather from it by our experience whatever may enlighten us on this obscure subject." (From the Report of the Society's Standing Committee for the year 1849).

DIFFERENTIAL DIAGNOSIS OF PERIPHERAL VASCULAR DISEASES

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Purpose of this paper is to discuss the most important differential features of specific peripheral vascular disorders. The various syndromes will be contrasted with each other as well as with pictures of similar symptomatology caused by disorders outside the vascular system.

For a basic description of the entities as such, the reader is referred to current textbooks.

In Scalenus Anticus Syndrome, x-ray will verify or exclude cervical rib or related anomalies of the transverse process. *Toxic neuritis* may come into differential consideration, but the absence of vascular symptoms, the absence of change in radial pulse or stretching and turning the neck, and a history indicating a possible etiology for neuritis, will make the differential diagnosis comparatively easy. Diseases of the cervical vertebrae including *enucleation of the disc* may enter differential diagnosis; x-ray and the finding of only very mild if any, vascular symptoms will decide against the Scalenus Anticus Syndrome.

Post-traumatic segmental arterial spasm has a characteristic history of sudden onset after trauma. Nerve-block or etamone-chloride should greatly relieve signs and symptoms. Acute embolic or thrombotic occlusion will be the most frequent differential problems; they will be discussed under the specific heading.

Sudek's atrophy is an x-ray diagnosis. Secondary Raynaud's phenomenon may or may not be associated with it.

The diagnosis of *primary Raynaud's disease* should not offer too much difficulty. It is hard to understand why it is still mistaken for Buerger's disease, and vice-versa. Primary Raynaud's disease is characterized by the history of attacks. The superficial ulcerations on the tips of the fingers and toes can hardly be compared with progressive gangrene in Buerger's. Raynaud's disease usually starts in the upper extremities, Buerger's usually in the lower extremities. Raynaud's is predominantly a disease of females, Buerger's is almost exclusively a disease of males. Buerger's disease may occasionally be associated with secondary Raynaud's phenomenon. The latter is the most important differential feature from primary Raynaud's disease. The secondary phenomenon never leads to trophic changes, the primary disease invariably does. *Secondary Raynaud's phenomenon* is always associated with underlying psychoneurosis or less frequently —with peripheral vascular regulatory or organic disturbances. Next in frequency for differential diagnosis are the vasoneuroses, including the different types of acrocyanosis. These patients never have severe signs, though they may have severe complaints. Capillary microscopy will make the diagnosis, but will usually not be needed.

The *occupational peripheral vascular diseases* such as occur in workers with pneumatic tools, pianists and typists may also show secondary Raynaud's phenomenon. They are characterized by vasospastic and neuritic symptoms and signs in the fingers or the whole hand, and by the occupational history.

Erythromelalgia (Weir-Mitchell's disease, Erytheralgia) has heretofore sometimes been diagnosed erroneously in cases of occlusive peripheral vascular disease, (especially obliterating arteriosclerosis) if the pain was burning in character and associated with rubor or cyanosis. The temperature of the limb and its reaction to warm and cold are unmistakable diagnostic features: the limb is cool or cold in occlusive arterial disease; it is very warm or hot in Weir-Mitchell's; the distress and pain in erytheralgia is brought about by heat and relieved by cold, while as a rule just the contrary is true for occlusive disorders.

Since *periarteritis nodosa* may affect different organ systems, its differential diagnosis is manifold. Leucocytosis and long-lasting elevation of temperature or bouts of fever are

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frequent in periarteritis nodosa, but may also occur in septicemias, in rheumatic fever, in brucellosis, etc. Marked eosinophilia is an important finding in favor of periarteritis nodosa. Anginal syndrome, with or without electrocardiographic changes, occurs and may be undistinguishable from that in coronary sclerosis. Marked muscular pains and cyanosis will make one think of periarteritis nodosa. The differentiation in involvement of the kidneys will depend on the rest of signs and symptoms. The abdominal form may be mistaken for appendicitis, cholecystitis, pancreatitis or ileus. The findings characteristic of involvement of the peripheral arteries, the regular rosary-like beading, and eventually biopsy may decide the diagnosis.

Lupus erythematosus disseminatus offers wide range for differential diagnosis. The incidence in young women, skin lesions (if present), the occurrence in bouts with high fever, and marked involvement of the kidneys may aid in decision for lupus erythematosus disseminatus. In its cardiac form (Liebman-Sacks' endocarditis) the disease may resemble subacute bacterial endocarditis; blood cultures, however, will be persistently negative in the Liebman-Sacks form of disseminated lupus erythematosus. Weakness may be so pronounced that myasthenia gravis may be considered. Neostigmin will bring instant but very transient improvement in myasthenia gravis, and of course none in disseminated lupus. In contrast to the leucocytosis usually seen in periarteritis nodosa, lupus erythematosus disseminatus usually shows leukopenia.

While *primary acute arteritis* is comparatively rare, and mostly seen in children, secondary arteritis is not so rare and may occur in all age groups. Longer lasting deep venous disease almost invariably leads to secondary arterial disease; if pain increases, especially on exertion, the cyanosis becomes pale, the pulses disappear, and trophic changes start to prevail in a case of thrombophlebitis, one will have to assume that the process has extended from the vein to the artery. *Superficial thrombophlebitis* in a varicose vein is easily palpated as a hard nodule or cord with or without surrounding inflammation. The type occurring in early Buerger's disease must be differentiated from lymphangitis; in the superficial thrombophlebitis in *Thromboangiitis obliterans,* we find a red hot cord or streak, localized, not starting at some place of infection but "out of the blue sky", and ending not at an enlarged lymph-gland but just anywheres "in the middle of the road".

Deep thrombophlebitis: Pain on pressure is a sign which may be present in neuritis to the same extent as in deep thrombophlebitis; Homan's sign is absent in neuritis, and present in a high proportion of cases of deep thrombophlebitis. The absence of diminished reflexes, the presence of edema, the presence of peripheral arterial disease or cardio-vascular disease, cachexia, the history of prolonged bed rest, preceding operation or childbirth, all are in favor of deep venous disease. The occurrence of pulmonary embolism is of course a most undesirable diagnostic aid. We should try to diagnose thrombophlebitis *before* embolism has occurred; to think of it at all times, to examine routinely the lower extremities every day, after operations or childbirth, in prolonged debilitating diseases, in persons with cardiovascular diseases, etc. This is the best and safest way to avoid the unhappy surprise of pulmonary embolism. Pulmonary embolism almost invariably shows inflammatory features (probably due partly to the phlebitis, partly to secondary pneumonitis at the infarct and surrounding it) and therefore is called "pneumonia". While the immediate institution of penicillin routine is definitely indicated, the physician must not stop there, but must search for the thrombophlebitis, and institute the proper therapy. Increase in temperature and in pulse rate are frequent precursors of embolism. The famous "wedge-shaped consolidation with the base to the periphery and the point to the center" on x-ray is usually nothing but a dogmatic text book feature; in reality, one finds all types of density and sometimes none. Finally: pulmonary embolism may occur entirely without hemoptysis. While the early phases of thrombophlebitis are more dangerous, because the thrombus is not yet firmly attached, the patient may suffer repetition of embolism after many weeks of dis-

ease. A basic differentiation in phlebothrombosis and thrombophlebitis is unwarranted; they are states of the same process.

Arterio-venous fistulae: The most important differential diagnosis here are from hemangiomata and pulsating metastases. Hemangioma may be, like AV-fistula presenting a localized convolute of dilated veins over a protruding area; in contrast to AV-fistula, there will be no thrill and no bruit as a rule, one will usually not be able to find a supplying artery and will never be able to elicit Nicoladoni-Branham's sign of bradycardia. For further differentiation into benign and malignant forms, biopsy may be necessary. Hemangioma may be diffuse and differentiation from congenital arterio-venous fistula may be necessary. The same criteria apply as for the localized form. The skin over any arterio-venous fistula is warm. There will be associated enlargement of the limb in the congenital type of arterio-venous fistula. Among the special types of hemangioma, hemangio-endothelioma or *Ewing's tumor* may be mentioned. This is characterized by bone involvement. It occurs most frequently in the long bones. Prognosis of hemangio-endothelioma depends upon their rapidity of growth and tendency to metastasize. If diagnosed early enough, combined surgical and x-ray therapy may create a favorable prognosis. The simple hemangioma is of course benign and the indication for surgery depends upon the size and location. Finally *multiple idiopathic hemorrhagic sarcoma* Kaposi should be mentioned, as dilatation of blood vessels is one of the characteristics of the lesion. Prognosis is not bad if proper x-ray treatment is executed and spread prevented.

Pulsating metastases are almost invariably a pathognomonic sign of primary cancer of the thyroid. They are found over bone metastases and appear as pulsating tumors under the skin. Thrill and bruit are frequently present. A predilection site is over the hip bone, the mass appearing under the skin of the buttocks. Differentiation from arterio-venous aneurysm is: absence of the convolute of dilated veins, absence of a palpable supplying artery, absence of Branham's sign (bradycardia on digital occlusion of the supplying artery) and absence of marked warmth above the swelling. The latter, however, may occur occasionally in pulsating metastases. There will be evidence of a wasting disease, while in acquired arterio-venous fistula, there is history of injury in the area. History of thyroidectomy and/or the presence of hard enlargement of the thyroid gland will decide. Thyroid metastases may be found through the help of radioactive iodine in conjunction with a Geiger-counter showing the "pick-up".

Lymphangiomas may occur pure or as a mixture with hemangioma. They are benign, rare and almost invariably congenital. The cavernous type may be extensive and affect a whole arm. They sometimes occur in the tongue, the lips or the cheeks and may produce grotesque enlargement of the organ.

Differentiation of *teleangiectasias of the skin* is easy. Simple, arborizing and spider-teleangiectasias are one group. The spider pulsates in only a small proportion of cases. In these, spurting may occur, but if so, it is due to an underlying artery and rare. Spiders are frequent in liver cirrhosis. They occur in some women during pregnancy and are occasionally seen in healthy people. The harmless *papular capillary teleangiectasias* are easily differentiated through their red color and firm surface from the livoid, more flabby lesions of *Rendu-Osler's disease* (familial hemorrhagic teleangiectasia). The former never bleed, the latter are characterized by their great tendency to profuse bleeding. The familial history is an additional reliable differential point. The harmless papular teleangiectasias occur almost invariably past middle age. Differentiation of Rendu-Osler's disease from blood dyscrasias is easy, as there are no changes at all which may be picked up in the blood, except for those of straight secondary anemia, due to repeated blood loss. Hemophilia shows prolonged coagulation time, Rendu-Osler does not; thrombocytopenic purpura shows diminished platelet count, Rendu-Osler does not.

The portwine-colored lesions of capillary *nevus flammeus,* the vascular birth mark, are well known. Rarely will a biopsy be warranted for differentiation with other, non-capillary, hemangiomatas.

Glomus Tumor: Glomi are physiologic structures, present in large numbers in the fingers and toes, in smaller numbers elsewhere in the skin. They serve the heat regulation of the body. Occasionally such a glomus or several of them may produce a new growth, making the glomus visible as a small nodule in the skin. Differential diagnosis against a small hemangioma is easy because of the extreme painfulness of the glomus tumor. Osler's nodes are not present in an otherwise healthy individual and they are not characterized by the purplish-blue color of glomus tumor. The same is true for Heberden's nodes.

The obliterating endarteritides frequently are accompanied by generalized signs and symptoms, such as hypertension in lead poisoning, eye lesions in ergot poisoning. The syphilitic and tuberculous types of endarteritis usually exhibit some other manifestations of the respective etiology; in syphilis, there will usually be hypertension, and cerebral manifestations are frequent just as in lead poisoning. Positive serology and the presence of cardiac manifestations differentiate the luetic form. The tuberculous form is rare; it occurs as a late manifestation with other gross manifestations of tuberculosis preceding it.

Differentiation of *thromboangiitis obliterans (Buerger's disease)* from other occlusive vascular disorders is not difficult, except for one great competitor: *obliterating arteriosclerosis.* The main differential feature in the minds of many workers is still the age group: it is customary to say "before 50 - Buerger's, after 50 - Arteriosclerosis". Such a concept is fallacious. In the first place, one has to search for the *onset* of disease, which frequently dates back many years prior to the time when symptoms first compelled the patient to seek a doctor's help. Often it is simply impossible to be sure at all about the time of onset. Even then, arteriosclerosis may start well before the age of 50, and probably in most cases does start much earlier. It must be admitted, however, that occlusive disease of the extremities is a comparatively late manifestation of arteriosclerosis. The coronary circulation tends to be affected in much earlier years. But we are much more aware of early manifestations of coronary disease than we are of those of the so-called "peripheral obliterating" form. Calcification of blood vessels is rare in Buerger's disease. But generally speaking, this sign should not be overrated; peripheral arterial calcifications are compatible with a perfectly sufficient circulation. In parenthesis, we may at this occasion also stress that in spite of extensive advertisement, oscillometers afford no substantial help in the differentiation of occlusive vascular disorders. The instrument merely indicates the presence or absence of a pulsating fair-sized-caliber vessel in the limb examined. We have seen limbs with zero oscillometer readings which were well supplied with blood. Manifestations of arteriosclerosis in other parts of the body and the presence of diabetes suggest obliterating arteriosclerosis rather than Buerger's disease. Heavy tobacco smoking may be present in both disorders; it is invariably present in Buerger's disease. Buerger's disease usually starts in the lower extremities, but frequently affects the upper extremities in the progress of the disorder. Sometimes there may be simultaneous manifestations in all four extremities. Obliterating arteriosclerosis on the other hand is usually confined to the lower extremities. Gangrene in thromboangiitis almost invariably starts at the acra and progresses rapidly, in the many patients, who, if unchecked, show a tendency to it; the two sides usually follow each other in rapid succession. In arteriosclerosis, gangrene progresses slowly, may be lingering for a long time, comparatively rarely exceeds initial demarcation; there may be gangrene of one foot, while the other extremity may never or very much later only show tissue death. Finally, angiography is a valuable help in differentiating Buerger's from obliterating arteriosclerosis: the typical segmented interruption of arterial filling with enormous collateral circulation in the small vessels in Buerger's is in impressive contrast to the localized block with or without the opening of new channels in arteriosclerosis. Heredity, race, nationality, occupation seem to be of no importance in the differential diagnosis.

Acute arterial occlusion may be embolic or thrombotic. Thrombotic occlusion may occur,

though rarely, in people with no previous manifestations of vascular disease; cardiacs on the verge of failure, patients with blood dyscrasias or such with severe infections or after severe trauma may be the victims of such incident. Usually arterial thrombosis occurs in people who have generalized peripheral vascular disease, especially arteriosclerosis. Whatever the cause, acute arterial occlusion is characterized by: sudden onset, pain, pallor with or without cyanosis. Without therapeutic interference, the course will be either towards recovery or towards the development of gangrene which progresses rapidly. The extent of gangrene in acute occlusion depends entirely upon the size of the area supplied by the occluded vessel. Differentiation from chronic arterial occlusion is easy. Sometimes one may wonder whether the picture is due to arterial or venous occlusion. This may be befuddling for the first few hours, but it will be easy to decide after that time. In pure venous thrombosis, the signs of arterial occlusion will disappear after five or six hours as they were due merely to associated reflex arterial spasm. If they persist for more than six hours and if they are not influenced by measures known to release arterial spasm [paravertebral nerve block or intravenous tetraethylammonium ("etamon")-chloride], then one will have to assume that there is present an associated organic arterial lesion, probably in the form of secondary arteritis.

The differentiation between *chilblains (pernio)* on the one hand and frostbite and trench (or immersion) foot on the other, is not simply a matter of degree. We believe that it is a matter of the segment of vascular tree involved: chilblains are spots of swollen, slightly cyanotic erythema in the skin, due to cold injury to the minute blood vessels; they occur in children and young adults mostly of the female sex, obviously because of clothing fashions.

Chronic perniosis has logically the earmarks of chronic local disturbance in the minute blood vessels. Ulcerations are frequent, but superficial. The surrounding erythema and the burning sensation in cold environment as well as their low site will differentiate them from ulcers due to varices; chronic perniosis is localized chiefly around the ankles, while the predilection for varicose ulcers is the shin. The ulcers of chronic perniosis are much more superficial and have a great tendency to hemorrhage in the surrounding tissues.

Frostbite and trench (immersion) foot in their acute phase show thrombotic disease of the blood vessels including arterioles, venules, small arteries and sometimes small veins. In other words they give the signs of occlusive arterial disease. Usually the early trophic changes are of a severity exceeding what one would expect from the degree of arterial involvement compared with chronic occlusive arterial disease. There will be a conclusive history, and predominance in the male sex. If, as in most cases occurring in civilian life, it is an individual with impaired arterial blood flow who suffers frostbite, there will be little tendency to recanalization, and tissue death will ensue. If, however, the exposure to low temperatures in connection with dampness concerns otherwise perfectly healthy individuals with no impairment in the peripheral circulation and its regulation at all, as happened in certain locations during the war, the results will be different. In such cases, one will find the signs of rapid recanalization in most instances. In the phase of convalescence and more so in the chronic phase, one has to use good knowledge of chronic vascular disease to establish whether the individual who contracted trench foot had a healthy vascular system before, or whether the frostbite occurred in someone who had diseased blood vessels or an impaired regulation of peripheral blood flow to begin with. The more discrepancy there is between the intensity and duration of exposure and the severity of the lesion, the more likely it will be that the patient had diseased blood vessels already when he contracted the thermal injury; the easier restitution occurs, the more likely it is that the subject had a healthy vascular system before the exposure. We have, however, seen permanent occlusive changes in small arteries in somewhat over 20 per cent of our chronic trench foot cases with no good reason to assume the presence of underlying chronic vascular disease.

In the differential diagnosis of chronic

trench foot we sometimes have to consider one of the *angioneuroses* and the presence of an orthopedic condition; peripheral neuritis will be easily excluded. An orthopedic condition, if present alone, produces no true vascular symptoms; of course an individual with chronic trench foot (or any vascular condition for that matter) may have "fallen arches", or "fibrositis" just like anyone else; they should be taken care of, as they may add more discomfort to a person with vascular trouble than in other people. The angioneuroses present an important differential diagnostic problem. Sensitivity to cold, tendency to hyperidrosis, paresthesias and cyanosis may be present in both types of disturbances. Chronic trench foot, however, is characterized by: history and the findings of postural color changes; a large proportion of the patients have pains in the calves on prolonged standing and walking; 50 per cent have bounding pulses; 27 per cent have some signs of arterial occlusive disorder.

Not much difficulty will be encountered in finding or excluding underlying *extravascular systemic disorders,* if the possibility be kept in mind. Purpura, other manifestations of hemorrhagic tendency, unexplained edema and ulcerations will be reason to investigate for the presence of blood dyscrasias (leukemia, the different anemias, idiopathic thrombocytopenia, etc.). There should be no difficulty in recognizing the presence of rheumatic fever, of heart or circulatory failure, of renal or hepatic insufficiency. Severe infections may give rise to those vascular phenomena. The occurrence of multiple peripheral thromboses makes one think of polycythemia vera; one will then search for hypertension or splenomegaly in addition to the characteristic findings in the blood, and the peculiar red cyanosis of skin and mucous membranes. Diminished coagulation time with an increased platelet count in the absence of an increased red cell count and with normal hemoglobin value will differentiate Nygaard's disease (essential thrombophilia).

Gangrene occurring in *central nervous system disorders,* e. g. in syringomyelia, must be differentiated from gangrene due to primary arterial disease. The basic differential diagnostic feature is: gangrene due to vascular disease is painful, whereas gangrene due to central nervous system disease stems from a trophic ulcer associated with anethesia of the part; or is a sequela of trauma plus anesthesia; it is therefore painless. In addition, the absence of signs of occlusive arterial disease and the presence of an organic central-nervous system disorder, such as syringomyelia or tabes dorsalis, will make the diagnosis.

When discussing gangrene not due to any of the known types of vascular disease, mention may be made of the rare disease *ainhum.* It occurs chiefly in the tropics, especially in Africa, and consists in gangrene of a finger or a toe, sometimes more, due to the development of a fibrous strand, usually at the base of a phalanx. The resultant gangrene is due to mechanical interruption of arterial supply and leads to self-amputation. The etiology is entirely unknown. Endarteritic changes which have been described in the self-amputated parts are, in all probability, secondary to the mechanical strangulation of the involved vessel.

Rarely one encounters gangrene due to mechanical strangulation of an artery through accident or neglect, e. g. if a tourniquet applied for hemotasis be kept in place for an unduly long period of time.

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TREATMENT OF LEUKOPENIA

Liver extract containing folic acid reverses neutropenia and leukopenia produced in rats by a purified diet containing an insoluble sulfonamide, but does not correct a similar state produced by benzol. Platt and associates state that methyl acetanide with para-chloroxylenol, 25% CXM, reverses, by direct action on the bone marrow, benzol-induced agranulocytosis and leukopenia, but fails to correct neutropenia produced by a purified diet containing succinylsulfathiazole.—Yale J. Biol. & Med. 18:275.

THE IMPORTANCE OF SIGMOIDOSCOPY*

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Early diagnosis of cancer is our sharpest weapon in fighting this disease. Cancer of the terminal bowel is common. Proper surgical treatment, if instituted early, is curative in a high proportion of cases. More than 75 per cent of carcinomas of the large bowel occur in the area of the low sigmoid and rectum. These lesions are easily visualized, readily biopsied and valuated economically and without undue distress or bother to the patient. All this may be accomplished by sigmoidoscopy in competent hands and under good conditions. Conversely barium examination of this lower and very important segment of the bowel leaves much to be desired.

It is of interest to note the incidence of routine x-ray examinations of the large bowel as compared to sigmoidoscopic examinations. In some New Jersey hospitals there were more than three times as many barium examinations of the large bowel done than proctosigmoidoscopies. Furthermore, in eighteen months a group of twenty private patients who had previously been examined by routine barium enema x-ray were sigmoidoscoped. This group had three factors in common:—they all had advanced malignancies; they all had normal x-ray findings; they all had positive sigmoidoscopic findings. The diagnostic x-rays were done by reputable and competent radiologists.

In no instance did the report of x-ray examination indicate that the low sigmoid or rectum was normal. In most cases the appearance of the colon shadow above the level of the mid and upper sigmoid was described in detail and the conclusion was reached that the colon was negative for pathology.

A change of attitude in regard to the importance and fallibility of the radiologic examination of the lower large bowel is in order. This change is especially important for the general practitioner and the diagnostician since radiologists are already well acquainted with this factor. Because a high proportion of all lesions of the colon occur within easy reach of direct vision with sigmoidoscopy and because this procedure causes little inconvenience, discomfort and time consumption, it is felt that the proper order of examination should be: a history and a physical examination (which includes a digital investigation of the rectum, of course) and then a sigmoidoscopy. Finally a barium enema may be required if the diagnosis is still elusive. Chemical and microscopic laboratory procedures may be accomplished as indicated.

Similar lines of attack on the diagnostic problems of large bowel lesions have been used for many years in the large medical centers. Many radiologists in diagnostic clinics refuse to do barium enema procedures before sigmoidoscopy has been accomplished. This outline of successive diagnostic procedures is logical and convenient. It has worked well and to the benefit of the patient in clinics, medical groups and in private practice. It is offered as a suggestion for practical application in the diagnosis of lesions of the terminal bowel. Poorly planned diagnostic efforts are detrimental in terms of time, effectiveness and cost. In such cases they can easily lead to an erroneous diagnosis. Subsequent loss of vauable time increases the gravity of the prognosis.

CONCLUSIONS

1. Sigmoidoscopy is of signal importance in the diagnosis of lesions of the terminal large bowel. There is no substitute for examination under direct vision particularly when this can be combined with expert evaluation of the lesion and when biopsies can be obtained at the same time.

2. X-ray examination by routine barium enema procedures is diagnostically valuable only *above* the level of the pelvic colon. Reports submitted by roentgenologists should include and indicate this fact.

3. In the course of diagnostic work-up of a patient with a suspected lesion of the large bowel, sigmoidoscopy should precede x-ray examination.

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*Read by invitation before the New Jersey Proctologic Society, October 31, 1948. Dr. Hopping is proctologist to the St. Barnabas and Lutheran Hospitals.

LABORATORY DIAGNOSTIC AIDS FOR THE GENERAL PRACTITIONER*

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While every general practitioner appreciates that medicine today is a science as well as an art, few are able to utilize readily the scientific procedures available to facilitate differential diagnosis of problem cases. We have chosen to discuss topics which may stimulate further diagnostic curiosity among the audience by elaborating upon the problems most frequently presented to us for study.

JAUNDICE

A simple division of jaundice has been made by Ducci into (1) prehepatic, (2) hepatic, and (3) post-hepatic types of jaundice. These divisions are comparable to the hemolytic, hepatic and obstructive types used by older students of the disease.

The practitioner must never neglect the absolute and fundamental importance of a complete history and physical examination before attempting the differential diagnosis of any case of jaundice.

Laboratory studies should include:

1. *Complete blood count*—Hepatic jaundice usually shows a leukopenia with absolute lymphocytosis. Morphologic changes in red cell count (spherical microcytes or sickling) should point to a hemolytic or pre-hepatic etiology. Macrocytic red cells suggest primary hepatic disease. This study facilitates recognition of leukemias. Post-hepatic (obstructive) jaundice is usually associated with a leukocytosis.

2. *Icterus index*—Indices under 100 suggest post-hepatic jaundice (obstructive) either calculi or chronic type of hepatitis. Indices consistently over 100 suggest complete obstruction of the ducts (carcinoma) or severe parenchymal disease of the liver.

3. *Van den Bergh*—This gives an accurate measurement of the bilirubin in the serum which normally rarely exceeds 0.3 milligrams per 100 cubic centimeters of whole blood. The direct and indirect Van den Bergh reaction as a differential diagnostic procedure has many pitfalls.

4. *Total protein and albumin-globulin ratios* are helpful. Hepatic jaundice usually shows an increased globulin while post-hepatic (obstructive) jaundice gives normal proteins without reversal of the albumin-globulin ratio.

5. *Alkaline phosphatase* (normal is 1.5 to 4 Bodansky units per 100 cubic centimeters of serum in the adult) may be elevated in post-hepatic jaundice (obstructive), while in hepatic jaundice it is either normal or reduced.

6. *Cholesterol levels* (normally 110 to 300 milligrams per 100 cubic centimeters of plasma) may indicate hepatogenous jaundice if low; and post-hepatic (obstructive) jaundice when elevated.

7. *Hanger's Test* (cephalin-cholesterol flocculation test) is usually strongly positive (plus 4) in hepatic jaundice, while in post-hepatic jaundice (obstructive) it is negative or plus 1.

8. *Bromsulphalein dye retention test* is valuable in estimating surgical risk in cases of cholelithiasis. Abnormal retention of the dye occurs in hepatic cellular damage. Normally thirty minutes after injection the calculated dosage should be completely removed from the blood stream. (Cardiac and thyrotoxic cases may produce abnormal dye retention).

9. *Prothrombin time studies* may differentiate hepatic from post-hepatic (obstructive) jaundice. If the prothrombin time is normal it gives no diagnostic information, but when prolonged, one may give vitamin K and if there is a subsequent reduction in prothrombin time it suggests a post-hepatic (obstructive) jaundice rather than parenchymal or hepatic injury. A reduction in prothrombin time is the rule in biliary obstruction.

10. *Absence of bile from the gastro-intestinal tract* may be evaluated in obstructive jaundice by determination of urobilin in the feces or by means of biliary drainage studies.

11. *Urobilinogen determinations in the urine* should be made on twenty-four-hour samples to eliminate hourly variations in output. Urobilinogen may be present in dilutions of one to twenty normally, and only when greater dilutions show positive with Ehrlich's reagent is it of pathologic importance. An excess of urobilinogen in the urine rarely occurs in post-hepatic (obstructive) jaundice unless infection is present.

The application of laboratory tests to the study of the jaundiced patient should always be made with knowledge of the fact that the duration of the jaundice alters the diagnostic inference of any test, and that when evaluating hepatic function all tests may give normal results unless 75 per cent of the hepatic cells have been impaired.

Much diagnostic information may be obtained in certain cases of jaundice, if we attempt to evaluate the retention of pancreatic

* From the Department of Pathology, Mercer Hospital, Trenton, N. J. Read by invitation before the Fall Clinical Conference, The Medical Society of New Jersey, December 8, 1948.

enzymes in the blood stream by determining amylase activity of the patient's serum.

The most informative tests for study of the jaundiced patient are: complete blood count, Hanger's flocculation, total protein, albumin-globulin ratio, prothrombin time, quantitative Van den Bergh, and studies for urobilin in feces and bilirubin and urobilinogen in urine.

Some cases of jaundice will require extensive study, utilizing cholesterol esters, galactose tolerance, and hippuric acid synthesis determination, before an etiologic classification can be suggested.

ANEMIA

The concept of anemia as a deficiency in the circulating erythrocytes, while essentially true, does not convey the full import of the term. Haden has established the concept that the peripheral blood and hematopoietic centers act as a unit, "the erythron". Anemia therefore, while basically a term for reduction in the number of circulating red cells should also connote an alteration in bone marrow activity.

To establish the deficiency of red cells in the peripheral blood, (which we regard as anemia) requires a complete blood count. This should report the usual data on white cell morphology sufficient to exclude the obvious leukemic etiology factor. It should also tell whether thrombocytes or blood platelets are seen. Quantitative platelet determinations are necessary before we can be fully assured as to the thrombocytic activity of the bone marrow.

Deficiency of blood cells and thrombocytes suggests an aplastic anemia.

The clinical syndrome of purpura may, like anemia, be associated with any blood dyscrasia. Always seek the hidden causative factor. Frequently none can be identified and we are left with the term "idiopathic purpura" as a cloak for our etiologic ignorance.

Study of such syndromes requires utilization of tests for skin bleeding time, capillary resistance and flicking tests, venous clotting time, clot retraction studies, and prothrombin determinations.

Prolonged capillary coagulation time, studied in conjunction with venous coagulation time and analysis of clot retraction, may point to differential diagnostic data of major importance. Clot retraction or "syneresis" is notoriously poor in the purpuric but of exceptional degree in the hemophilic.

Most practitioners are familiar with the terms "macrocytic anemia" and "microcytic anemia". It must be remembered that macrocytic anemias may be seen in diseases of the liver, gastro-intestinal tract and tropical sprue, as well as in cases of primary pernicious (Addisonian, Biermer's) anemia.

It is imperative, therefore, that every patient with anemia have a gastric analysis. Cases of primary pernicious anemia show an absence of free hydrochloric acid from the gastric juice which antedates the anemia, is absolute, and persists throughout the life of the patient. Antecedent, absolute and permanent, these are the features of achlorhydria in primary pernicious anemia which the practitioner should remember.

No diagnosis of pernicious anemia is acceptable unless studies have been made to exclude malignancy of the gastro-intestinal tract. Practitioners should remember that cases of true pernicious anemia in relapse will show not only a red cell level often as low as 1.5 million, but also a leukopenia usually in the range of 1500 to 2000 white blood cells, and a lymphocytosis often as high as 60 per cent. Such data should also lead the clinician to suspect an anemia of aplastic etiology, and in cases of this type, studies of the sternal bone marrow become of paramount importance.

Reticulocyte counts on patients receiving liver therapy for pernicious anemia serve a three-fold purpose. They establish potency of the preparation being administered, demonstrate ability of the bone marrow to respond, and serve as a therapeutic proof of the diagnosis.

Few practitioners appreciate the fluidity of the cytologic picture of the bone marrow nor do they realize that studies of the bone marrow are contra-indicated when other less strenuous procedures will establish the diagnosis.

It is ridiculous to request sternal aspiration studies first and plan to evaluate later the blood counts, gastric analysis, volume index, or reticulocyte levels. When indicated, study of the sternal bone marrow may provide diagnostic

information in 16 per cent of the cases. No competent interpretation of the findings from sternal aspirate can be made unless the patient, his history, and symptomatology are reviewed by the pathologist.

Examining and talking with the patient can be recommended. Obscure anemia due to thyroid dysfunction may be discovered at the bedside as well as in the laboratory.

MALIGNANCY

No single laboratory test will give an absolute diagnosis of malignancy. Certain laboratory procedures may be utilized in the study of any patient suspected of having a malignant condition. The most useful are:

1. A complete blood count may, in classical cases, reveal a malignancy of the hematopoietic tissues which we commonly call leukemias, or polycythemias. It may point to (or confirm) a secondary anemia, which should always place the doctor on guard, especially when dealing with individuals beyond the fourth decade of life.

2. Recent publicity has indoctrinated the public as to the diagnostic value of the examination of smears from the body secretions in order to discover malignant cells. Vaginal smears, cervical smears, bronchial aspirates, gastric washings, prostatic secretions, and urine may provide specimens for laboratory study. However, while we do not wish to detract from the value of any of these modes of study, (for they do have their place) we feel that a word of caution should be given with respect to their clinical evaluation. Lombard, Middleton, Warren, and Gates state that there is no indication for using the vaginal smear as an adjunct to biopsy in the ordinary case of pelvic disease, and the application of the method as a screening test, although more economical than other procedures available for detection of the earlier stages of malignancy among large groups of apparently well persons, is not likely to bring to light many cases. Among 6265 cases examined by the vaginal smear, only eight symptomless carcinomas were found; but an estimated 39 early carcinomas produced symptoms and were diagnosed by a positive biopsy as well as a positive smear. One would feel, therefore, that, with respect to carcinoma of this region, a thorough and complete pelvic examination with visualization of the structures involved and a biopsy of any suspicious areas would be preferable to subjecting the patient to the cost of a vaginal smear study, plus the cost of a tissue biopsy.

Pleural and peritoneal effusions as well as gastric washings may be submitted to the laboratory for cytologic examination. The proteinaceous elements of such a fluid can be precipitated and subjected to tissue technics like any other fragment of human tissue. Properly prepared cell blocks from such fluids may reveal cells having all of the classical criteria of malignancy, yet few competent pathologists will make more than a "suspicious" diagnosis on the basis of finding a single malignant cell in such preparations.

3. When malignant tissue is available, biopsy of the suspected growth is the best method for absolute diagnosis. The histologic criteria of malignancy in such specimens are well established and should be known to all.

There is one aspect of this problem in which the general practitioner can do a great deal of good with respect to the early diagnosis of malignant lesions. Everyone has at some time or other, removed skin lesions from his patients and consigned them to the waste basket. This practice is to be condemned. Recently we studied a cervical lymph node and made a histologic diagnosis of metastatic malignancy. Subsequently the clinician informed us that an ulcerating lesion had been removed from the abdomen of this patient many months before. Had this original specimen been sent to the laboratory for gross and histologic study, the patient's second biopsy would have been unnecessary. Routine gross and histologic examination of all surgical specimens from everyone's practice is of vital importance in the early recognition of malignant conditions. Surely the most valuable weapon in our battle with malignancy is early recognition.

446 Bellevue Avenue

ROUTINE CHEST FILMS

Routine chest roentgenograms are now made on all patients at the time of their admission to Veterans Hospitals and on all veterans who visit outpatient departments for pension or compensation examinations, unless they have been examined within the previous six months. In addition to this, annual roentgenograms are obtained for all hospital employees and all patients who are hospitalized for more than one year. John B. Barnwell, M.D., Am. Rev. Tuberc.

RELIGION AND MEDICINE *

Harrold A. Murray, M.D., Newark, N. J.

One cannot review the history of medicine without being impressed with the great part that religion has played in it. With the first manifestations of life on earth, there is abundant evidence to prove the existence of disease. There were fractures, dental caries and parasitic diseases in dinosaurs and other animals of the Mesozoic period.

In the primitive man, medicine was practiced in an instinctive or empirical way. Fever was relieved by applications of cold water; and pain, (the relief of which probably is the basis of all medical therapy), was lessened by rest of the injured part or the licking of wounds, as occurs in animals today. It was natural then, for man to be confounded by the phenomena of fertilization and birth and the mysteries of life and death, and to attribute these to some factors not readily accessible to the senses and therefore supernatural. It was easy for him to accept the fact that in many diseases, such as visible lesions or parasitic diseases ot the skin, the cause was evident and in many cases could be removed. When the cause was invisible, blame was placed on some far distant agent, such as the stars or other heavenly or earthly bodies.

THE MAGIC ERA

When one believes that supernatural forces are the cause of disease, it follows that if he is to defend himself against them, he must learn to combat them. That is the origin of magic medicine, which for many centuries offered the only "cure" for the ills of mankind. Superstition was rampant. Evil (generally in the form of a demon with an evil eye) was blamed for all sickness. There was worship of the stars, sun, moon and sea, and veneration of sacred animals—and majestic trees. The hanging of the clothing of the sick one on the Tree of Good was supposed to cure, hiding behind the tree was supposed to prevent sickness. It was a common practice to hide from the evil demon by means of masks or by painting designs of many colors on the skin. This is the underlying idea of the tattoo, which even today we see occasionally decorating the skin of a neighbor. Our first physicians then, were magicians who knew how to predict the future by observing the stars and encouraging cures by resorting to current superstitions.

THE PRIESTLY ERA

When religion was introduced to mankind, priestly medicine slowly took the place of empirical and magic medicine. Priests of the earliest religions mediated between man and the gods, and took on the power of curing disease. When religion became a definite entity and assumed its place in life of man, priests became physicians and medicine and religion were one. All learning then took place in the temples and schools. Pagan priests practiced the art of healing in their temples. For many centuries only priests practiced medicine.

Anyone who reads the history of medicine from these early days of magic medicine, through the ages of Egyptian, Jewish, Grecian, Roman and later the medicine of the School of Salerno, is impressed with the important place that religion and medicine hold in the history of civilization and the development of social and political life.

THE SCHOLASTIC ERA

Christianity played a large share in the development of medical science. The priests, like the Rabbis in the Jewish communities in the late Middle Ages, were all physicians. Through the influence of the church, hospitals, nursing homes and asylums for the care of deserted children were established, and systematic nursing was stimulated. Christianity provided for the sick, especially in epidemics which were common and widespread. Alms houses, shelter homes for travelers, and great hospitals were established everywhere. Monasteries were seats of learning especially in the Middle Ages

* Read by invitation, Rotary Club, Phillipsburg, N. J., December 8, 1948. Though this talk was delivered to a lay audience, it is printed here because so many members of our Society have asked for suggestions for addresses suitable for civic, religious and lay groups.

and here medicine was taught by the masters.

In the early centuries, the practice of medicine by the clerics was not disapproved. In the twelfth century, ecclesiastical canons were framed, which were adverse to clerics practicing medicine. The reason was that "lest through such sciences, spiritual men be again plunged into worthy cares". However, priests were allowed to practice medicine when ordinary physicians were not available and in cases of necessity where danger to life was involved.

Gradually, through ecclesiastical edicts, definite restrictions were made so that the priest confined his duties to the care of the soul, and the physician to the care of the body. Then came the Renaissance and with it the beginning of the period of so-called scientific medicine.

OLD CUSTOMS STILL PERSIST

From the early days of Egypt, when Imhotep, the Egyptian god of medicine was supposed to control health and was invoked to prevent and cure all ills, through the period of Jewish medicine, when Moses instituted the first laws of hygiene and established precepts of dietary laws that are still followed by many among that religion, a more or less spiritual aspect of sickness has ever been in the foreground.

It is interesting to note how many customs and traditions still persist today. The Greek emblem, the Caduceus, a "serpent coiling around the staff of Aesculapius" is still our insignia today. This had its origin among the Minoans in Crete and was handed down to the Greeks. The serpent was chosen because of his great wisdom. He sheds his skin, and it was therefore thought that he indefinitely renewed his youth. Hence, the emblem represented the perpetuation of youth and the overcoming of death. The short wand of Mercury with two serpents, the one used by the Medical Corps of our Army, is not the true symbol.

The origin of the Rx seen on every prescription blank today was an abbreviation of the pagan symbol for Jupiter and was said to have been employed as an invocation on prescriptions by Chaldean physicians.

Heliotherapy or sun worship has been popular since 1360 B.C.

The modern barber pole, with its white and red stripes indicating bandage and blood, originated during the Renaissance, when the barber was the official bloodletter, cupper and leecher.

Hippocrates was born in Cos in 460 B.C. The oath which binds physicians to the observance of rules in ethics, has been handed down from antiquity, it originated with this great physician. Most medical colleges require the physician on receiving his degree in medicine take this oath. In brief, it asks the physician to swear to Apollo, the physician: "That he will impart his knowledge not only to his own sons, but also to those of his teachers and others interested in the art; that he will follow a regime in the treatment of his patients that will be conducted in an unquestioned manner; that he will administer no deadly drug or perform no abortion; that he will not divulge professional secrets and with purity and holiness will he pass his life and practice his art". It is a sacred oath and demonstrates how reverently the doctor should consider his profession. If he follows its precepts, his life should be similar to that of his fellow worker, the clergyman, who labors so faithfully for the salvation of souls. The whole philosophy of the Greek mythology with Apollo as the healing god, endeavored to instill body perfection, youth and health into the daily life of all. There was a great influence towards all that was noble and uplifting which modern psychology attempts to do by suggestion and autosuggestion. It was in this period that the first health resort and primitive medical schools were established.

PHYSICIAN-CLERICS

In the third century A.D. in Arabia, Saints Cosmos and Damian, the patron saints of surgery, were excellent physicians as well as devout priests. In the Middle Ages, monasteries were the seats of medical teaching and many monks were renowned physicians. Albertus Magnus, born in 1193, was a Dominican priest. His most important service to medicine was in pointing out the great value in observing nature. His writings were many and he was a leading scholastic physician.

The most famous Jewish leader, also a physician, was Moses Maimonides, who was born in Spain in 1135 A.D. He adhered to the teachings of the Talmud and was an ardent scholar. In Morocco, Egypt, and later in Palestine, he was a zealous religious leader and later in life, distinguished himself as a medical man.

Probably one of the most famous of modern physician-ministers was Wilfred Grenfell. Dr. Grenfell attained fame in connection with his work in Labrador, where he brought peace of body and soul to the inhabitants of that small fishing colony. Through his efforts fishing industries were erected and he served the people well, both as a physician and a clergyman.

CONCLUSION

Religion and medicine are not and never have been in conflict. Through the ages they have enjoyed, in general, an intimate relationship. When one is sick he turns for help, to his God, through his clergyman, and to his physician. In our hospitals today, whatever the denomination, every patient is assured the spiritual and professional assistance of his own choice. A knowing physician recognizes the great aid that a wise clergyman can give in effecting relief, particularly in the psychosomatic phase of illness.

As professional men and women become more and more educated in the science and art of medicine, they realize that things do not happen by chance but rather by a definite law which governs the universe. There must be Someone who directs these rhythmic and mysterious changes in nature and guides them with a knowing hand. It is not surprising then to find that most of our great scientists throughout the ages were conscious of the Infinite, and very humble in their own limited knowledge. Many times they had to be dependent on faith. The simple faith of perhaps the greatest scientist of all times, Louis Pasteur who said: "the more I know, the more nearly does my faith approach that of a Breton peasant. Could I know it all, my faith would doubtless equal that of a Breton peasant's wife".

In declaring his faith in God as a "superior mind that reveals itself in the world of experience", Doctor Albert Einstein, one of the world's great scientists, says "The man who regards his own life and that of his fellow creatures as meaningless is not merely unfortunate, but is almost disqualified for life".

The best physician is one who is skilled in his art and has a keen appreciation of the spiritual value of life. He constantly keeps in mind the welfare of his patient, not only the evident signs of bodily illness but also the state of mind which is of paramount importance in successful therapy. Realizing the advantages and limitations of laboratory procedures and the newer antibodies and drugs, he combines their help with his clinical observation and in so doing he follows the pattern set for him by his ancestors, who from the days of Hippocrates have endeavored to make the care of their patients their first consideration.

624 Mt. Prospect Avenue

FIFTY YEARS AGO

"Another form of quackery appears under the head of specialist. Fashion is no more tyrranical in dress than in disease. Some medical gentlemen with great avidity advertise that they are ready to cure the latest fashionable diseases in the most fashionable manner. He advertises as a specialist and his office is crowded with patients. He is ready to receive them and deceive them. Recently it was fashionable for ladies to be afflicted with ulceration of the os uteri and they must have a specialist to treat them. Liberties in the way of examinations—and otherwise—are permitted the specialist which are not allowed the family physician. . ." (Essay on "Quackery in the Regular Profession" by David Warman, M.D., of Trenton, read at the 1899 Annual Meeting of The Medical Society of New Jersey, published on page 247 of the *Transactions* of that year).

STATE ACTIVITIES

GOVERNMENT AND HEALTH

The Congressional Record contains a compact and thought-provoking analysis of the role of Government in health, recently written by our own U. S. Senator, H. Alexander Smith. The remarks of Senator Smith, in abstract, follow:

It is gratifying that so much discussion is taking place nowadays on the subject of the health of the American people. Our national health is a vital ingredient of our economic productivity, our national security, and—above all—of that greater fulfillment of the democratic promise of American life which we must be ever seeking to achieve.

My position in the Senate during the last 2 years has kept me in daily contact with this health question. The health subcommittee of which I am chairman held hearings which cover over 2000 pages in the printed record in an effort to develop a sound Federal health program. I was therefore closely interested in Federal Security Administrator Oscar Ewing's report to the President, published in September under the title "The Nation's Health: A Ten-Year Program".

This document sets up goals for national accomplishment by the year 1960 in training of medical personnel, construction of hospitals, improvement of local public-health services where these are inadequate, and pursuit of certain especially important special programs in the fields of mental health, chronic diseases, vocational rehabilitation, and child care. In his presentation Mr. Ewing states very forcefully the discrepancy between our present level of achievement in all these fields and what he considers a feasible ideal.

Of course, in the nature of the case the Federal Security Administrator is a special pleader for expanded Federal health activities. It is therefore not surprising that, in the fields just mentioned, he calls for a total Federal health expenditure of some $2,300,000,000 by 1960—more than three times the present figures. Yet, if there is room for difference of opinion on size and detail, still I find myself substantially agreeing with his presentation of these needs; they are all of great importance and probably all of them should benefit by greater Federal participation, as Mr. Ewing suggests, side by side with the States and local communities.

So far, so good. But where Mr. Ewing and I part company is in approaching the central question of national health—the question of how to achieve the best distribution of medical and hospital services among all the people, regardless of their location or economic status. His answer constitutes the heart of his report. By now it is a familiar answer to many of us. He advocates a nation-wide, compulsory system of health insurance, to be financed primarily by a tax on all wages. Under this system the insured person would be guaranteed whatever care he needed without charge. Doctors and hospitals would be reimbursed out of the national insurance fund. Both the states and the federal government would be involved in determining the method of payment, the extent and standards of services to be rendered under the system, and the respective rights of patients, doctors, and hospitals.

It is, of course, beyond dispute that a large proportion of the American people cannot pay for the medical and other health services they need. But to say that compulsory health insurance, with all its glaring disadvantages, is the only way to meet this problem is a premature admission of defeat.

Such a system would involve a very considerable administrative cost in all levels, which would have to be paid out of the wage-earner's special tax. It would involve government inspection of medical and hospital facilities and government adjudication of complaints by patients or doctors in order to assure them their rights under the law. All this would add to the cost of actual medical care. Meanwhile, if foreign experience with compulsory health insurance is a reliable guide, we could expect the quality of medical care to suffer, and preventive medicine to fall into disuse, as more and more efforts were bent toward administering the largest possible amount of treatment to the greatest number of patients.

In view of these probabilities, I have the most serious doubt that the services promised under Mr. Ewing's proposal could be delivered. I think it very possible that we would find ourselves taxing the people under false pretenses. This consideration alone would be enough to deter me from voting to put such a scheme on the statute books.

But to my mind there is an even more compelling reason for opposing the compulsory system. Our federal system, with its balanced division of responsibilities between the local communities, the states, and the central government, is one of our great sources of strength as a nation. Before we do violence by granting to our central government such a vast new power as Mr. Ewing proposes, there must be an overriding necessity for it. Those who are urging this grant of power have tried to make out a case for such a necessity—but in so doing they have had to exaggerate the size and urgency of the country's health needs, and they have minimized the possible achievements of activity by states and voluntary groups.

The plan for American health which I support

is very different. It would preserve the existing federal-state relationship in the health field. The federal role would remain one of stimulation and support through grants-in-aid to the states. Under these grants, each state would be challenged to work out its own approach to the most urgent health problems facing it—especially the problem of making good medical and hospital care available to those who cannot afford to pay for this care. The keynote of the whole program would be experimentation. With 48 laboratories working at once to develop and mobilize their health resources, I am confident that sound and fruitful solutions would emerge to fit the different needs of the various states.

The share of the federal government in health activities is already large—nearly $750,000,000 a year—and is sure to grow larger. The question of organization of these functions becomes increasingly important. Governor Dewey has already proposed the creating of a new Cabinet department to include all the government's social (welfare) functions—in social security and education as well as in health. The logic of this appeals to me, since clearly the health, the education, and the general economic security of the people are closely bound together. The proposals of the Hoover Commission on the organization of the entire executive branch, should be of value in this connection. Whatever organization we finally agree on, the vitally important point is that the federal government should play its proper role in the effort to improve the health of America. That role is one of consultation, encouragement, and stimulation by financial and other means—to the end that the states, the professions involved, and the consumers of medical services may be enabled to work out their own salvation of this vital realm.

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AMERICAN ACADEMY OF NEUROLOGY

Announcement is made of the establishment of the American Academy of Neurology, whose purpose is to further the practice of clinical neurology and to stimulate teaching and research in neurology and allied sciences.

Active membership in the Academy is open to every physician who has been certified in neurology or in both neurology and psychiatry. Junior membership is available to physicians presently engaged in graduate studies in neurology or who are awaiting certification. In addition, there is an associate membership for those who are not certified but whose interests are in fields related to neurology. It is hoped that because of the unrestricted membership, this association will be representative of the entire specialty and will offer an organ of expression for many of the younger men in the field. The American Academy of Neurology at present has 500 members.

The first scientific meeting will be held at the French Lick Springs Hotel, French Lick Springs, Indiana, on Wednesday, Thursday and Friday, June 1, 2 and 3, 1949. Dr. Dave B. Ruskin of the Caro State Hospital, Caro, Michigan, is in charge of the scientific program.

The present executive council consists of Dr. A. B. Baker, Minneapolis, president; Dr. Pearce Bailey, Washington, D. C., vice-president; Dr. Joe R. Brown, Minneapolis, secretary-treasurer; Dr. Frederic Lewey, Philadelphia, Dr. William A. Smith, Atlanta, Dr. J. M. Nielsen, Los Angeles, and Dr. A. L. Sahs, Iowa City, Board of Trustees. Communications should be addressed to Dr. Joe R. Brown, 19 Millard Hall, University of Minnesota, Minneapolis 14, Minnesota.

TROPICAL DISEASE NOTES

PREPARED BY COMMITTEE ON TROPICAL DISEASES
AND CONSULTANTS

Nascent iodine is the best treatment for tropical ulcers of the soles of the feet or the lower part of the legs caused by the fusiform Vincent's bacillus. The ulcer is cleaned and dried and iodoform is applied, or a 10 per cent solution iodate is poured over it. The ulcers may produce family epidemics by contamination of bedding. Gas. farm. (Rio) 15:2 (1947).

SLEEPING SICKNESS

Injections of 100 milligrams of 4,4'-diamidinostilbene every two days (total up to 550 milligrams) produced clinical cure in three of 13 cases of sleeping sickness. In no case, however, did the cerebrospinal fluid become normal. Of the remaining cases, some were unchanged or treatment had to be discontinued because of intolerance. The clinically "cured" cases were attenuated or of medium severity. The others were severe and would have required a long period of treatment with tryparsamide or Antyrpol in order to be cured. (Ann. Trop. Med., 34:101 (1940).

First tests with 4,4'-diamidinostilbene in the treatment of sleeping sickness show that it causes rapid improvement of the condition and temporary stimulation of the autonomous nervous system which decreases with subsequent injections. Treatment is ineffective if the protein content of the cerebrospinal fluid is over 0.05 per cent. Ocular complications and albuminuria were not observed. The intravenous dose is a milligram per kilo of body weight. Intramuscular injection is of advantage for young children; by this route, the drug is painless. The effect is produced twice as rapidly as when tryparsamide is used. (Ann. Trop. Med. 34:217.)

AMEBIC HEPATITIS

The most important factor in the early recognition of amebic hepatitis is awareness of the possibility of the disease. Without this, diagnosis is either late or accidental. The discussion is based on 81 cases. Of the 58 with amebic abscess, 20 per cent had complaints and clinical findings centering in the lower right pulmonary area necessitating differentiation from pulmonary diseases. Early diagnosis must rest on collateral diagnostic findings especially the presence of *Entameba histolytica* in the stools, roentgenologic signs and the complement fixation test. Treatment of hepatic amebiasis if accompanied by diligence and care in the demonstration of evidences of amebiasis in patients will reduce errors in diagnosis and cut the promiscuous use of emetine to a minimum. (Amer. J. Trop. Med., 25:35.)

AMEBIASIS

Oral emetine is effective in intestinal amebiasis. Two tablets of 2/3 grain each three times a day for adults and one tablet three times daily for children do not provoke toxic reactions. Treatment was continued for 12 days with total dosage of 24 grains for adults and 12 for children. (Am. J. Trop. Med., 27:527, 1947. See also Am. J. Trop. Med., 26:293, 1946.)

RICKETTSIAL DISEASES

In Rocky Mountain spotted fever and in murine typhus para-aminobenzoic acid (paba) has been used with some degree of success. (Pediatrics 2:163, 1948) and (Am. J. Trop. Med., 28:629, Sept. 1948.)

LITERATURE AVAILABLE

Several pieces of literature are available free to those interested in tropical diseases. These include (a) a quinine formulary, (b) a manual on the technic of blood examination and (c) an account of Cinchona in Java.

These may be secured from the Cinchona Products Institute, 10 Rockefeller Plaza, New York 10, N. Y.

Also recommended is a booklet called *The Causal Agents of Tropical Diseases.* This lists all invaders from arthropods to virus. It may be secured free from Winthrop Stearns Co., 170 Varick Street, New York 13, N. Y.

Christian P. Segard, M.D., Chairman

N. J. PROCTOLOGIC SOCIETY

Dr. Julius Gerendasy of Elizabeth has been elected president of the New Jersey Proctologic Society, succeeding Dr. Frank S. Forte of Newark. Other current officers are: vice-president, Dr. A. L. Reich of Newark; treasurer, Dr. Saul Zager, of Newark; secretary, Dr. Urban R. Finnerty of Montclair. Physicians interested in proctology are invited to address their inquiries about the association to Dr. Finnerty at 71 Park Street, Montclair.

SUPPLEMENTARY LIST No. 2 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Adler, Joseph, 933 Avenue C, Bayonne (9)
Alonzo, Gerald J., 477 Stuyvesant av., Lyndh'st(16)
Arbeit, Sidney R., 56 Gifford av., Jersey City (9)
Aronoff, Solomon, 70 Columbia ter., Weehawken (9)
Bagg, Linus, Basking Ridge (7)
Bauer, John T., 312 E. 2nd st., Moorestown (3)
Bauman, Abraham, Main st., Stirling (20)
Benedict, Mitchell M., Fort Monmouth (13)
Bernstein, Israel, 95 Wilson av., Newark (7)
Beyer, William, 612 Undercliff av., Edgewater (2)
Biunno, Anthony J., 61 Hillcrest ter., East Orange(7)
Black, LeRoy W., 33 W. Passaic av., Rutherford(2)
Blackman, Sadie, 12 Roosevelt av., Westwood (2)
Blanchard, Charles L., 28 E. Blackwell st., Dover(14)
Blaustein, Maurice L., 859 S. 13th st., Newark (7)
Bleasby, Charles B., 136 Passaic st., Garfield (2)
Brundage, Robert H., 232 Ivy court, Orange (7)
Burnett, Hayes J., 1 Hawthorne pl., Montclair (7)
Carey, David S., 11 E. Main st., Freehold (13)
Carmona, Manuel G., 501 Park av., Collingswood (4)
Carpenter, Marcus E., 99 Storms av., Jersey City(9)
Caruso, Anthony T., 304 Union av., Belleville (7)
Cebula, Jerome M., 7332 Boulevard, N. Bergen (9)
Cerreto, Frank R., 395 Roseville av., Newark (7)
Chromow, Bernard, 95 Wilson av., Newark (7)
Cohen, Herman N., 108 13th st., Hoboken (9)
Comora, Herman C., 317 60th st., West New York(9)
Connell, John N., 26 Carlton av., Jersey City (9)
Conte, Andrew N., 1018 S. Broad st., Trenton (11)
Corwin, Emanuel, 5 Richards av., Dover (14)
Cotton, Norman T., 219 Graham av., Paterson (16)
Craster, Charles V., Plane and Will'ms sts.,New'k(7)
D'Agati, Vincent, 174 Merrison st., Teaneck (2)
Dailey, Jeremiah, 113 N. 13th st., Newark (14)
DeGregorio, Peter J., 56 Prospect st., Madison (14)
Deitmaring, Francis A., 7922 Boulevard,N.Bergen(9)
DePasquale, Filarginio, 560 Jersey av., Jer. City(9)
DeVito, Alfred T., 711 Grand av., Asbury Park (13)
Dilger, Frederick G., 210 Main st., Hackensack (2)
Dwyer, Henry P., 261 Madison st., Passaic (16)
Engelhart, Ferdinand K., 28 Oak Lane, Trenton (11)
Fadden, Francis J., Jr., 275 Engle st., Englewood (2)
Feldman, Matthew, 120 Bogart rd., N. Hackens'k (2)
Felitti, Vincent J., 435 79th st., North Bergen (9)
Fenimore, Edward D., 77 Grace st., Jersey City (9)
Ferguson, William E., Newark City Hosp., New'k(7)
Ferris, Ruth B., 8 Wetmore av., Morristown (14)
Fessler, William, 31 Knox av., Cliffside (2)
Firtel, Saul I., 1060 Broad st., Newark (7)
Frank, Ulysses M., 12 Undercliff rd., Millburn (7)
Friedrich, Adam H., 47 Clark st., Manasquan (7)
Garbarini, John G., 93 Clifton pl., Jersey City (9)
Garrett, Thomas A., 315 Park st., Hackensack (2)
Gear, Philip Eud., 340 Belmont av., Newark (7)
Gleeson, William J., 640 Bergen av., Jersey City (9)
Gobel, Stanley J., Box 284, Bound Brook (13)
Goldstein, Edward W., 561 E. 28th st., Paterson (16)
Grunt, Louis, 817 Salem rd., Union (7)
Haines, Frank B. L., 503 9th st., Ocean City (5)
Halperin, David, 590 Bergen av., Jersey City (9)
Halpern, Sophia L., 1311 Palisade av., Union City(9)
Harrington, Walter L., 104 S. Munn av.,E.Orange(7)
Harris, Charles M., 279 Grove st., Jersey City (9)
Hernandez, Manuel, 1974 Boulevard, Jersey City (9)
Herold, Harvey T., 850 S. 13th st., Newark (7)
Hershey, Harry H., 921 Bergen av., Jersey City (9)
Hofer, William R., 125 Main st., Williamstown (4)
Horowitz, Robert, 2769 Boulevard, Jersey City (9)
Hussong, Wallace B., 225 N. Seventh st., Camden(4)
Janifer, Clarence S., 208 Parker st., Newark (7)
Johnston, Julian F., 21 VanDoran av., Chatham(14)
Kain, Thomas M., Jr., 403 Cooper st., Camden (4)
Keller, Rudolph J., 821 Garden st., Hoboken (9)
Kerdasha, George S., 135 79th st., North Bergen (9)
Kerns, Francis J., 526 W. Market st., Newark (7)
Kilts, Winfield S., 966 Garrison av., Teaneck (2)
Kingslow, George L., 346 1st st., Hackensack (2)
Klein, Alfred, 6-25 Plaza rd., Fair Lawn (16)
Kooperman, Barnett, 321 60th st., W. New York (9)
Korman, Arnold, 388 12th av., Paterson (16)
Kosminsky, Louis, 321 60th st., West New York (9)
Kralik, Joseph J., 555 Market st., Newark (7)
Kulick, Morton, 731 14th av., Paterson (16)
Lang, Richard W., 500 Mountainv'w ter.,Dunel'n(20)
Lee, Frederick P., 606 E. 27th st., Paterson (16)
Levinson, Robert M., 824 S. 12th st., Newark (7)
Lippman, Harold, 68 Elizabeth av., Newark (7)
Little, Alonzo W., 120 Arlington av., Jersey City(16)
Liva, Arcangelo, 4911 Orinda av., Los Angeles, C.(2)
Longshore, Walter E., Jr., 216 Oakw'd av.,Or'ge (7)
Loori, William A., 549 Pavonia av., Jersey City (9)
Lorenze, Edward J., 196 Prospect st., East Orange(7)
Lurie, Solomon I., 21 Hillside av., Newark (7)
Mandell, Sidney N., 313 Monastery pl., Union C. (9)
Mangelsdorff, Arthur F., 707 W. 8th st., Plainf'd(18)
Manzione, Frank A., 500 Union av., Paterson (16)
Margolin, Samuel J., 1012 80th st., North Bergen (9)
Marvel, Philip, Jr., 101 S. Indiana av., Atlantic C.(1)
Meltzer, Louis, 837 Avenue C, Bayonne (9)
Munro, Charles A., Main st., Marlton (3)
Muttart, George W., 2521 Boulevard, Jersey City(9)
Neary, Edward R., 210 Carlton ter., Teaneck (2)
Neumann, Alfred, 432 Washington av., Linden (20)
O'Connell, William, 87 Clifton ter., Weehawken (9)
Offenkrantz, William C., 121 Vroom st., Jer. City(9)
O'Gorman, Michael W., Medical Center, Jer. City(9)
Peterson, Charles A., 921 Washington st.,Hobok'n(9)
Petinga, Thomas J., 114 S. Illinois av., Atl. City (1)
Philo, Seymour S., 849 Hamilton av., Trenton (11)
Pinto, Joseph A., 50 N. 11th st., Newark (7)
Probst, Everett W., 276 Willow av., Lyndhurst (7)
Ravits, Everett, 418 Main st., Hackensack (2)
Reed, Robert R., 65 Washington st., Morristown(14)
Reiter, Walter A., 50 DeForest av., Summit (20)
Rentrop, Chas.A.,Jr.,364 E.Ridgew'd av.,Ridgew'd(2)
Ricketts, Henry E., 25 Shephard av., Newark (7)
Roecker, Roland D., Vets. Administration, Lyons(18)
Rommer, Jack J., 25 Ingraham pl., Newark (7)
Rooks, Wendell H., Wyckoff (2)
Rosenbauer, H. J., 120 Clinton pl., Hackensack (2)
Rosin, Robert, 824 Stelle av., Plainfield (20)
Rosner, Francis I., 653 Maywood av., Maywood (2)
Rubin, Henry S., 11 High st., Morristown (14)
Ruttenberg, Max, 303 Cooper st., Camden (4)
Sacco, Gregory E., 191 Broad st., Red Bank (13)
Sadoff, Irvin E., 163 New st., New Brunswick (12)
Saltus, Lloyd S., 16 Elm st., Morristown (20)
Schenker, Israel N., 3697 Boulevard, Jersey City(9)
Schenker, Sarah S., 1009 Garden st., Hoboken (9)
Schiffmann, Samuel, 107 Spruce st., Newark (7)
Schulman, Abraham S., 4518 Boulevard, Union C.(9)
Siegler, Julius, 646 Bergen av., Jersey City (9)

Sigman, George, 254 Union st., Jersey City (9)
Silberner, Herbert B., 99 Hillside av., Newark (7)
Skrypski, Joseph M., 2756 Boulevard, Jersey City (9)
Smith, Nelson M., 144 Harrison st., East Orange (7)
Stark, Harry L., 680 Hudson Boulevard, Bayonne(9)
Stassi, Anthony, 481 Passaic av., Lodi (2)
Stiles, C. Campbell, 713 Park av., East Orange (7)
Tomlins, Francis I., 97 Madison pl., Ridgewood (2)
VanEerde, Albert, 911 North Wood av., Linden (20)
Wagner, J. George, Delanco (3)
Wakeley, William E.,Jr., 47 Virginia av.,Lig'gst'n(7)
Waldron, John F., 625 S. Orange st., S. Orange (7)
Wiggins, U. S., 1025 S. 4th st., Camden (4)
Williams, Raymond A., 7207 Atlantic av.,Ventnor(1)
Wilson, Lester R., 3320 Federal st., Camden (4)
Woolf, Bernhardt H., 41 Hedden ter., Newark (7)
Wort, Frederick J., 1080 Broad st., Newark (7)
Yasskin, Hymen E., 575 Stevens av., Camden (4)

ASSOCIATES

Chase, William M., 84 Astor st., Newark (7)
Livingston, Paul, 299 Main st., East Orange (7)
Walker, John C., Jr., 15 Washington st., Newark(7)

OBITUARIES

DR. GEORGE T. BANKER

Dr. George T. Banker of Elizabeth, died suddenly of a heart attack on March 6.

Dr. Banker was born in Rhinebeck, N. Y., in 1882. He received his medical degree from Cornell University Medical College in 1911, and after serving an internship in New York Hospital, practiced medicine in Elizabeth.

Dr. Banker was treasurer of the Union County Medical Society, senior attending physician at Elizabeth General Hospital, member of the consulting staff of Bonnie Burn Sanatorium and for many years physician for contagious diseases at the Alvin R. Eaton Memorial Hospital. During World War II he served as chief of the internal medical department of the Elizabeth Induction Board for more than five years.

Dr. Banker took an active part in community life. He was a member of the Board of Education for several years and served for three years as president of the Municipal Insurance Fund Commission. He was an accomplished organist and pianist, and while a medical student, served as organist of the Episcopal Church of the Holy Apostles in New York.

DR. FREDERICK H. DECKER

On October 26, 1948, the Hunterdon County Medical Society paid tribute to Dr. Frederick H. Decker in commemoration of his fifty years of private practice. He was hailed as "a prime example of the real general practitioner who had, for half a century, steadfastly upheld the best tradition of the brotherhood of Aesculapius."

Dr. Decker died on March 7, 1949. Born in Asbury Park in 1876, he came to Frenchtown in 1898 after having been graduated from the Jefferson Medical College the previous year. He was twice honored by his fellow townsmen by election as mayor of Frenchtown. He was vice-president of the Union National Bank in that borough and medical inspector of the Frenchtown schools.

DR. ELVIRO MANCUSI-UNGARO

Dr. Elviro Mancusi-Ungaro, Newark pediatrician and diagnostician for more than 30 years, died at his home on March 9, after a brief illness.

Born in Sarno, Italy, in 1893, Dr. Mancusi-Ungaro came to Newark in 1899. He was graduated from New York University College of Medicine in 1917, and served his internship at Newark City Hospital.

He was attending pediatrician at St. James and American Legion Hospitals, and consulting pediatrician at Essex County Isolation Hospital.

ONE HUNDRED YEARS AGO

FROM A PAPER BY DR. O. H. TAYLOR, VICE-PRESIDENT, AT THE 1849 ANNUAL MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY: "I have regarded The Medical Society of New Jersey as a civic institution, established for a social purpose, rather than as a body of philosophers engaged in the treatment of disease. New Jersey has contributed her full quota of enterprise in all other departments of human affairs. The walks of mercantile life, the theatres of industrial energy, the bench, the bar, the halls of legislation are graced on every side by bright stars from the galaxy of genius, claiming New Jersey as the fountain of their light, though the illumination of their rays extend from ocean to ocean, and from the frozen plains of the north to the southern boundaries of the Anglo-Saxon race. The medical profession of New Jersey holds, at the moment, the power to place her in advance of all her sisters in the march of medical reform." (Page 488 of the 1849 *Transactions.)*

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

FREE *POB* FOR SYPHILIS

The Section of Venereal Disease Control of the State Department of Health has a supply of POB (penicillin - oil - beeswax) which is available to physicians for the ambulatory treatment of all classifications of syphilis. The physician should note (on the back of the report card) that he wishes POB or—if the case has been reported previously—a note or phone call (Trenton 2-2131, extension 705) is all that is necessary. Two vials of POB (six million units) will be mailed at once. Although improved products of penicillin are on the market, this POB has been used satisfactorily by many physicians. It is a fluid product.

Patients also may be hospitalized, as in the past, without cost to the patient. Eight days' hospitalization is the usual period, during which time 4.8 million units of aqueous penicillin are injected.

A single injection of the slowly absorbed products of penicillin cures most cases of gonorrhea. To encourage the use of penicillin in the treatment of cases of gonorrhea (proved or suspected) a vial of POB is being sent to physicians when reports of five cases of gonorrhea have been received. Physicians are asked to report suspected cases of gonorrhea with a note such as "clinical symptoms present" or "history of exposure". In these cases it is desirable to give penicillin treatment because the patient has had sexual contact with a known case of gonorrhea or has other good evidence of gonorrhea even though the disease has not been proven by positive smears or cultures.

PRESENT STATUS OF FLUORIDE THERAPY

The Section on Dental Diseases of the New Jersey State Department of Health has instructed all dentists participating in its treatment program to utilize the topical application of 2 per cent aqueous solution of sodium fluoride to children's teeth, where feasible. This action inplements the statements issued by the American Dental Association and the New Jersey Dental Society.

Results of experiments by the United States Public Health Service indicate that an average reduction of 40 per cent in new dental caries will occur when a 2 per cent aqueous solution of sodium fluoride is applied to the teeth of children under 15 years of age. This protection has been stated to persist, to some extent, for 3 years after each application. At the first visit, a simple prophylaxis is performed, followed by the swabbing of the teeth in each quadrant of the jaw with the sodium fluoride solution. The areas to which the solution is applied must first be dried thoroughly and isolated with cotton rolls, and the applied solution must be allowed to dry before another area is so treated. The applications are repeated, without prophylaxis, three more times, at intervals of three days to one week.

According to the Attorney General's interpretation of the Dental Practice Act as amended, only licensed dentists are allowed to apply sodium fluoride to the teeth. Nurses and dental hygienists are therefore legally unable to perform this treatment. Parents should not apply this solution to their children's teeth, since this is a potentially dangerous form of self-medication. Ingestion of an ounce of 2 per cent fluoride may prove fatal to a child. Moreover, the absence of a prophylaxis before the first application will reduce the effectiveness of the treatment by at least 50 per cent.

While the exact mechanism of the protection afforded against new dental caries by the topical application of sodium fluoride is not fully understood, it is known that this technic changes the physical characteristics of the enamel structure to make it harder and more resistant to decalcification by acid produced by the breakdown of refined carbohydrate food. It must be remembered, however, that *sodium fluoride has not been shown to have any effect upon dental caries, once this process has started.* In fact, sodium fluoride may produce injury to the dental pulp when applied in concentrated form to deep cavities.

Theoretically, to produce its maximal effect, the solution should be applied to teeth as soon as they erupt into the oral cavity. Practically, this technic should be used at 3, 7, 10 and 13 years of age, which correspond to the average periods at which a sufficient number of newly erupted teeth are present.

Sodium fluoride is no panacea against dental ills, not even against dental caries. The results so far indicate a 40 per cent reduction (on the average) in new caries, so that some treated children will receive much less, while others will benefit more than 40 per cent. And, on the average, there still remains a 60 per cent residual of unprotected teeth. From this it can be seen that fluoride therapy is no substitute for adequate dental care or for proved methods of preventing dental caries. By the latter is meant the restriction of refined carbohydrate intake, which has repeatedly been shown to reduce caries incidence by up to 90 per cent.

There is no evidence that the systemic or local use of troches, lozenges, chewing gums, dentrifrices or mouth washes containing fluoride salts has any beneficial effects. Prescribing of such preparations by the dentist or physician is to be discouraged.

In summary, the topical application of sodium fluoride is a valuable adjunct in the fight against one of the most widespread diseases of man, but not a substitute for other accepted dental procedures.

Further information can be obtained from the New Jersey State Department of Health, Trenton, New Jersey.

WARNING ON URETHANE

The Federal Security Administration's Food and Drug Administration is making seizure of Syrup of Urethane. This is a cough syrup manufactured by Marvin R. Thompson, Inc., Stamford, Conn. Physicians are warned that the administration of urethane in the quantity recommended on the label may cause a dangerous lowering of the white blood cell count. This leaves the patient more liable to infection from disease. Individuals suffering from coughs are likely to have accompanying infections.

While urethane came into use as a sedative about a century ago, recent medical studies clearly demonstrate its potential danger when used as directed in the labeling of this syrup. However, when use of urethane is discontinued the white blood cell count ordinarily returns to normal in a short time.

More than 2300 gallons of Syrup of Urethane have been distributed in about 34,000 packages ranging in size from ½ oz. physician's samples to one gallon bottles. The product has gone throughout the country to physicians, wholesale druggists, and retail pharmacists.

When seizure actions were commenced the manufacturers started to recall Syrup of Urethane from the market. The manner and extent of distribution are such that neither the manufacturer nor health offices will be able to locate all bottles promptly.

The American Medical Association and the American Pharmaceutical Association are assisting by distributing this warning.

INTERNATIONAL CONGRESS ON RHEUMATIC DISEASES

You are invited to come to the Waldorf Astoria in New York for the International Congress on Rheumatic Diseases from May 30 to June 3. This Congress is sponsored by the American Rheumatism Association, the United States Public Health Service, and the Arthritis and Rheumatism Foundation.

Dr. W. S. C. Copeman of London, who will speak at the Congress on June 2, on fibrositis, is the delegate from Great Britain. Dr. Fernando H. Ramos from Montevideo is the official representative from Uruguay. He will take part in the Clinic Session on "The Painful Shoulder" Friday, June 3. Dr. A. R. Moreno of Buenos Aires represents Argentina and will present a paper on Thursday, June 2, entitled "Relations between Rheumatic Disease and Allergy". Many other distinguished visitors from these and other countries will take part in the sessions. Physicians from the United States are heavily represented on the program.

Inquiries concerning registration, the complete program, and other aspects of the Congress should be addressed to Mr. Robert D. Potter, Executive Director, 535 Fifth Avenue, New York, New York.

COUNTY SOCIETY REPORTS

CAMDEN COUNTY

Harold K. Eynon, M.D., Reporter

The regular monthly meeting of the *Camden County Medical Society* was held on March 1, in the Society home, 729 Federal Street, Camden.

DR. FRANCIS B. WOOD, professor of Medicine, Medical School, University of Pennsylvania, spoke on "The Processing of Medicine".

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club on February 17, with DR. FRED FAUX presiding.

Dr. Wright announced that negotiations had been completed with the State Board of Child Welfare whereby fees would be $2 and $3 for office and home visits respectively, free choice of physician to be allowed the client. The society would have a committee to review any controversial subjects as special fees, excess visits, etc.

Following the other committee reports, the speaker of the evening, DR. GLOVER, of the Hahnemann Medical College and Hospital, Philadelphia, was introduced. With slide illustrations Dr. Glover gave a very interesting and revealing paper on the "Surgical Treatment of Mitral Stenosis". This relatively new and rare operation promises much in the future in properly selected cases. A lively question and answer period followed.

Mr. Robbins, Gloucester County Red Cross Chairman, then introduced MR. JONES, Field Representative of the National Red Cross. Mr. Jones gave us a clearer picture of the proposed collection of blood from Gloucester County citizens for free use of Gloucester county patients needing blood, regardless of where hospitalized. The proposal was approved in principle by the Gloucester County Medical Society, and a letter to that effect was sent to the Gloucester County Red Cross Chapter.

The regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, March 17. At the call of President FRED FAUX, the various committee chairmen gave their reports. The most important of these was the one of Dr. I. N. Patterson, of the legislative committee. He discussed pending and imminent plans in both the State Legislature and in Washington. Dr. Patterson also touched on the matters that came up at the recent meeting of the welfare committee in Trenton. It was shown that one of our most potent weapons in combatting socialized medicine would be to sell more Medical-Surgical Plan.

Dr. Louis K. Collins, chairman of the program committee, announced that the April meeting would be a Fifth Councilor District Meeting held at the Woodbury Country Club, April 21, 1949, at 9:30 p.m. The regular business meeting will be held at the usual time, 9:00 p. m. The speaker for the district meeting will be DR. F. F. BORZELL, Speaker of the House of Delegates of the American Medical Association. The topic will be "American Medicine Throws Down the Gauntlet". Wives, interested guests, and the press will be invited to attend.

Dr. David Brewer, the treasurer, reported that a few men have not paid their dues, and that even more have failed to meet the assessment.

JOHN PREECE, M.D., Obstetrician of the Mercer Hospital, Trenton, then gave a very interesting and thought provoking paper on "The Toxemias of Pregnancy". Many pertinent questions were ably answered by Dr. Preece.

Refreshments were served after adjournment.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

Hudson County Medical Society held its regular monthly meeting on February 1, at Murdoch Hall, Jersey City Medical Center. DR. D'ACIERNO presided.

The recommendation of the Board of Trustees of The Medical Society of New Jersey, that the county society endorse the A.M.A. assessment of $25 per member, was unanimously approved.

Postgraduate courses in *Surgical Pathology and Elementary Electrocardiography* were announced by Dr. Ginsberg, chairman of the Committee for Postgraduate Medical Education, as starting on Friday, February 18, provided the minimum number of registrations has been received. He urged those interested to enroll at once. With reference to the proposed course in *Surgical Pathology,* it was announced that Dr. Maxwell J. Fein would change the content of the course in accordance with the wishes of the subscribers, some of whom have signified preference for a more general anatomical distribution of the subject than was outlined originally.

The following were elected to membership: DR. JOHN R. O'BRIEN and DR. WILLIAM OFFENKRANTZ of Jersey City, and DR. CHARLOTTE A. KLEINER of Leonia.

Preliminary to the *Forum on Compulsory Health Insurance,* the meeting was addressed briefly by DR. J. HOWARD HORNBERGER, president of The Medical Society of New Jersey, who attended as a guest. Dr. Hornberger extended the greetings of the State Society and expressed gratification at the unity of purpose and spirit in this Society as demonstrated by the unanimous vote of approval of the A.M.A. assessment.

In place of the usual scientific session, a Forum on Compulsory Health Insurance was presented. Guest speakers who participated in the Forum were: JIM BISHOP, editor and author; JAMES E. BRYAN, Executive Officer of The Medical Society of New Jersey, and DR. FRANK F. BORZELL, Speaker of the House of Delegates, American Medical Association.

A spirited discussion from the floor followed. Taking part in the discussion were DRS. ALPERT, ANNITO, ARONOFF, BEDRICK, DONNELLY, FIGURELLI, JAFFIN, QUIGLEY, SCHNEIDER and VARRIANO.

The Forum was closed by DR. NORTON, president-elect of The Medical Society of New Jersey, who in a stirring address urged that the medical pro-

fession close ranks in a common cause—its own preservation and the preservation of the rights and privileges of those whom it has dedicated itself to serve. Intelligent, aggressive and socially conscious leadership is the need of the hour, he said, with an aroused sense of personal responsibility on the part of each and every physician.

HUNTERDON COUNTY

H. A. Davidson, M.D., Reporter

A special meeting of the *Hunterdon County Medical Society* was held in Flemington on January 30, 1949, for the purpose of receiving and acting upon the report of the ad hoc liaison committee on the proposed Hunterdon County Medical Center. The committee, which consisted of Dr. Fritz, Dr. Davidson and Dr. Germain, had met with a committee of the trustees of the proposed medical center to discuss the relationship between our society and Hunterdon county practitioners generally with the medical board of the proposed hospital. Our liaison committee had proposed certain changes which were acceptable to the trustees of the hospital and the society thereupon, on motion of Dr. Looloian, voted to endorse the proposed hospital and to cooperate with it. Dr. Baker also reported on an agreement between the county's practitioners and the county welfare board, copies of which are to be distributed to Hunterdon practitioners by the secretary of this society.

MIDDLESEX COUNTY

William M. Winn, M.D., Reporter

The regular monthly meeting of the *Middlesex County Medical Society* was held at the Roosevelt Hospital, Metuchen, on February 16. The meeting was called to order by Dr. F. M. Clarke, the president.

On recommendation of the committee on medical ethics, Drs Bernard J. Miller, Highland Park; and William G. Kuhn, New Brunswick, were elected to a two-year period of Associate membership; and Dr. Johannes Bielsky, New Brunswick, was elected to Regular membership status from Associate.

Dr. F. M. Hoffman, reported on the revision of the "Principles of Medical Ethics". There was a discussion from the floor on the portion dealing with "Contract Practice". A letter from John F. Bruther, Attorney to The Medical Society of New Jersey, stated that contract practice per se is not unethical, provided it does not violate any of the seven special features which are enumerated in Section 3—Article 6.

Dr. Hoffman moved that the A.M.A. Code of Ethics be adopted word for word as a matter of principle. Motion was seconded and carried. Dr. E. Klein moved that the last paragraph be deleted. This was seconded and passed.

A motion by Dr. Marshall Smith, that new contracts made by members of the Middlesex County Medical Society, may be submitted to the committee on medical ethics for approval was seconded and passed.

Dr. Clarke recommended that a copy of the provision be mailed to all industries in the area.

Dr. Hoffman moved that the entire Code of Ethics having been passed in part, be now passed in toto. This was seconded and passed.

Upon motion the account furnished by John F. Bruther, Attorney, for services rendered re the new Constitution was passed for payment.

Dr. Taber reported for the committee on legislation regarding a new bill compelling all laboratories to be under the supervision of an M.D. This act was approved by the State Society and our Senator and Assemblymen have been notified of our support.

Dr. Toy reported for the medical practice committee. Following a discussion of the fee schedule, it was voted that interested members meet with the committee in consultation.

Dr. Glasser reported on the Group Hospitalization Plan, stating that even though the quota had not been met, the Plan has been put into effect and that any member of the Society desirous of joining can do so up to March 1, on a pro rata basis.

Dr. Clarke announced the appointment of Dr. Joseph H. Kler to the cancer control committee.

Communications received by the Society:

1. A letter from The Medical Society of New Jersey requesting nominations for Emeritus membership in the State Medical Society.

2. Communications from Camden, Monmouth and Union County Medical Societies, forwarding the name of their respective candidates for the office of Second Vice-President of The Medical Society of New Jersey. Following a discussion, a motion was moved and carried that Dr. F. S. Taber be endorsed by our Society as a candidate for Second Vice-President of The Medical Society of New Jersey. The secretary was notified to acknowledge receipt of the above communications and inform these County Medical Societies of our action.

Dr. Clarke then introduced the President of The Medical Society of New Jersey, Dr. J. Howard Hornberger, who spoke briefly on the importance of the individual physician in public relations. He expressed his appreciation for the cooperation he has always received from our Society, and members on the State Society committees.

Mr. James E. Bryan, Executive Officer of The Medical Society of New Jersey was then introduced by Dr. Clarke. Mr. Bryan discussed the proposed $25.00 special assessment and the educational program designed by the State Society and the A.M.A.

Dr. Norman M. Scott, Director of the Medical-Surgical Plan of New Jersey was introduced and outlined the policy of the Plan and its growth.

On motion moved and carried the Middlesex County Medical Society endorsed the A.M.A. assessment of $25 to be levied against each member.

A colored film on "Diagnostic Tests in Peripheral Arterial Disease" was shown.

The regular monthly meeting of the *Middlesex County Medical Society* was held on March 16, at the Roosevelt Hospital, Metuchen, with the meeting being called to order by the president, Dr. F. M. Clarke.

On recommendation of the committee on medical ethics, Dr. I. E. Sadoff of New Brunswick was elected to Regular membership from Associate membership.

Dr. John H. Rowland reported that the name of a candidate had been nominated for the General Practitioner's Award. Upon motion, the Society endorsed the nomination.

Communications read by the Secretary:

The Ocean County Medical Society announcing that Dr. W. E. Dodd was their candidate for the office of Second Vice-President of The Medical Society of New Jersey. It was moved and seconded that this letter be filed.

Dr. Fishkoff brought the attention of the Society to the efforts of the Middlesex County Tuberculosis League offering mass x-ray examination to the public, and asked if this Society is to take any part in sponsoring the move. It was moved and carried that this matter be left to the committee on public health for action.

Dr. Sandella reported that the Middlesex County Dental Association will not join with the Middlesex County Medical Society for a combined outing in June.

DR. J. EDWARD BERK, M.D., F.A.C.P., assistant professor of Medicine, Temple University, spoke on "Diagnosis of Carcinoma of the Pancreas".

MONMOUTH COUNTY

Lester A. Barnett, M.D., Reporter

A paper on "Pre- and Post-operative Care" featured the monthly meeting of the *Monmouth County Medical Society* held at the Monmouth Memorial Hospital, Long Branch, on February 23. DR. CHARLES R. DREW, professor of Surgery, Howard University, Washington, D. C., spoke on water balance, acidosis, shock, hypoproteinemia, electrolytic states and other phases of the interesting subject. The presentation was enthusiastically received by the large group attending.

DR. FRANK J. ALTSCHUL, president, introduced DR. J. HOWARD HORNBERGER, president of the State Society, who spoke briefly on the recent "America's Town Meeting" broadcast over radio and television on the subject "Should We Adopt a Compulsory National Health Insurance Program?" A report was then given on the Speaker's Bureau and their recent briefing session in Trenton. A general discussion on Compulsory Health Insurance followed.

The Executive Committee nominations were presented from the floor and balloting followed. Officers elected for the year were: *President,* DR. HARRY BRINDLE; *President-Elect,* DR. SAMUEL EDELSON; *Secretary-Treasurer,* DR. ANTHONY J. DEVITA; *Assistant Secretary-Treasurer,* DR. HOWARD C. PIEPER; *Reporter,* DR. LESTER A. BARNETT. Elected to the *Executive Committee,* DRS. THEODORE SCHLOSSBACH, PAUL K. BORNSTEIN, and FRANCIS SCHMIDT; *Board of Censors,* DR. GEORGE J. MCDONNELL; *Delegates to the State Society,* DRS. HAROLD H. FREEDMAN, ANTHONY J. DEVITA, DANIEL F. FEATHERSTON, SAMUEL EDELSON; *Alternate Delegates to the State Society,* DRS. OTTO R. HOLTERS, MARTIN A. QUIRK, ARMAND F. VERGA, LOUIS F. ALBRIGHT; *Nominating Delegate,* DR. WILLIAM G. HERRMAN; *Alternate Nominating Delegate,* DR. DANIEL F. FEATHERSTON.

On recommendation of the membership committee, DR. THOMAS J. GILMOUR, JR., of Keansburg was elected to Associate membership.

A short discussion of the Emergency Medical Service Plan concluded the meeting.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on February 15, at the Woman's Club, Paterson.

At the business session, the members of this County voted by an overwhelming majority to approve the $25 assessment of the A.M.A. This action gives complete endorsement to the policy of the A.M.A. in its opposition to socialized medicine and compulsory federal health insurance.

DR. J. ALLEN YAGER, the President, presided at the meeting, and introduced DR. J. HOWARD HORNBERGER, President of The Medical Society of New Jersey, who spoke briefly on the vital issues pertaining to compulsory health insurance.

Also present was MR. JAMES E. BRYAN, Executive Officer of The Medical Society of New Jersey, who described the background of the A.M.A. assessment, its endorsement by the Board of Trustees of the State Society and its submission to each County Medical Society for their voluntary approval in proper democratic procedure.

The following members were elected to membership: DRS. ALFRED KLEIN, Fairlawn, and MORTON KULICK, Paterson to Active membership; DRS. LEO FELD, Passaic, and BENJAMIN HUREWITZ, Fairlawn, to Associate membership.

Twenty-nine Delegates and Alternates to represent the Passaic County Medical Society at the Annual Meeting of The Medical Society of New Jersey to be held in April were also elected. DR. LEON E. DE YOE was elected Nominating Delegate and DR. CHARLES J. MURN, Alternate.

Dr. Yager introduced the speaker of the scientific session, JOHAN H. W. VAN OPHUIJSEN, M.D., F.A.P.A., founder of the Netherlands Psychoanalytic Society in 1917; attending in Psychiatry at Veterans Administration Hospital, Bronx; and psychiatrist with the Jewish Board of Guardians since 1935.

Dr. van Ophuijsen addressed the members on the subject "Psychiatry of Childhood and Adolescence". His address was very well received and there was much interested discussion among the members.

SOMERSET COUNTY

H. E. Cook, M.D., Reporter

The regular monthly meeting of the *Somerset County Medical Society* was held on February 10, at the Somerset Hospital Nurse's Auditorium with DR. A. F. MANGELSDORFF presiding.

After a short business meeting, Dr. George A. Glass introduced the speaker of the evening DR. GERALD H. PRATT, surgeon in charge, Vascular Clinic, Post-Graduate Hospital, New York City. Dr. Pratt spoke on *The Surgical Treatment of Veins and Their Complications.* His very interesting and informative talk was punctuated by the use of color photo-slides of surgical technics and various types of thrombi removed.

A business session was reopened following the speaker's address. Notice was given that at the next meeting a representative of the *Disability In-*

surance Law will be here to discuss its main features.

Dr. Frank L. Field of Far Hills, was nominated as our choice for the General Practitioner Award.

A motion was made and passed that a resolution be drawn up to The Medical Society of New Jersey, recommending that the Medical - Surgical Plan of New Jersey be advised, if at all practicable, to open its rolls to the general public on certain designated periods so that small, now unprotected groups, might avail themselves of this protection against the costs of medical care.

The regular monthly meeting of the *Somerset County Medical Society* was held on March 10, at the Somerset Hospital Nurse's Auditorium with Dr. Mason Pitman, the Vice-President, in the chair.

Dr. George A. Glass introduced the speaker of the evening, Dr. Mack Lipkin, associate professor of Medicine, New York University Medical School. Dr. Lipkin spoke on *The General Practitioner and the Nervous Patient.*

Dr. M. J. Powell of Bedminster, and Dr. Harry Berliner of Veteran's Administration Hospital, Lyons, were elected to membership.

Dr. L. C. Fritts reported on the activities of the welfare committee.

SUSSEX COUNTY

R. A. Weinstein, M.D., Reporter

The regular winter meeting of the *Sussex County Medical Society* was called to order by the Vice-President, Dr. E. Bergmann, at the Sussex Inn, Sussex, on February 18. The following members were present: Drs. Drake, Vermes, Coleman, Piampiano, Bergmann, Hill, Weiser, Caleca, Kirschner, McCall, Schmidt, Spurgeon and Catlett.

Mr. Jerome Herzenberg, secretary of the Sussex County Cancer Society, spoke on the purposes and functions of the Society represented, and to clarify any misconceptions in the minds of the county physicians regarding the purposes of the Society.

A letter was read from Dr. Quigley regarding Senate Bill 94, requiring clinical laboratories established within the last five years to function under the direction of a licensed physician. The legislative committee was advised to contact the county representatives as to the county's standing on this measure.

A letter from Dr. Carroll, chairman on the advisory committee on school health, pointed out certain inadequacies in the school health program. The acting president appointed a council, with Dr. Eddy as Chairman, which included all school physicians and school nurses in the county. This council would investigate matters so that all requirements would be met.

This was followed by a discussion of the A.M.A. educational fund assessment, and it was recommended that the members of the county society endorse the A.M.A. educational program by paying the assessment.

UNION COUNTY

Emanuel M. Satulsky, M.D., Reporter

On January 12, 1949, the *Union County Medical Society* met at the Regional High School in Springfield, with the President, Dr. R. M. Nittoli, in the chair.

The guest speakers were Drs. Henry H. Kessler and John F. Flanagan of Newark, whose subject was "The Office Management of Low Back Pain". A very interesting discussion period followed.

Dr. James E. Dinneen of Plainfield, was elected to membership. Candidates elected to membership on transfer from other Societies were: Dr. Meyer Nimaroff, Summit, from Essex County Medical Society; Dr. Herman C. Rogers, Scotch Plains from Warren County Medical Society of Pennsylvania; Dr. J. James Smith, Elizabeth, from New York County Medical Society: and Dr. John V. Triolo, Summit, from the Olmsted-Houston-Fillmore-Dodge County Medical Society of Minnesota.

The Society endorsed the Union County Mental Hygiene Clinic.

Mr. James E. Bryan, Executive Officer of the State Society, guest of the evening, gave a resume of the Interim Meeting of the A.M.A. held in St. Louis last December. He also discussed the $25 assessment for the A.M.A. educational fund.

The recommendation was made and moved unanimously that the Union County Medical Society go on record as endorsing Dr. Herschel S. Murphy of Roselle, as candidate for Second Vice-President of The Medical Society of New Jersey.

Muhlenberg Hospital was host to the *Union County Medical Society* at its annual business meeting on April 13. The meeting was opened by the president, Dr. R. M. Nittoli at 9 p. m. The nominating committee recommended the following panel of officers for 1949-50, all of whom were unanimously elected: *President,* Dr. Frederic W. Lathrop; *First Vice-President,* Herschel S. Murphy; *Second Vice-President,* Louis S. Wegryn; *Secretary,* Edward G. Bourns; *Treasurer,* Henry Abel; *Reporter,* Emanuel M. Satulsky.

On recommendation of the membership committee, the following applicants were elected to full membership: Dr. Abraham H. Bauman of Sterling; Dr. Richard W. Lang of Dunellen; Dr. Robert F. Rosin of Plainfield; Dr. Albert Van Eerde of Linden; Dr. Philip Shulman of Roselle. Miss Louise Rogers, the executive secretary, gave her annual report which was followed by an address by Dr. R. M. Nittoli, as retirlng president.

There was an extended discussion of the A.M.A. educational program on a county level led by Dr. W. H. McCallion. A resolution was adopted urging members to take up military service if they were educated at government expense and had not served in the armed forces. The moral obligation of these physicians was stressed and the delegates from this county were instructed to introduce a resolution at the annual meeting in Atlantic City urging that these members who refuse to serve be dropped from the rolls of the State Medical Society.

The constitution of the society was amended to include emeritus members to be elected annually.

WOMAN'S AUXILIARY

MRS. NORMAN NATHANSON

PRESIDENT 1949 - 1950

Mrs. Norman Nathanson, the former Edith Maloney, is the daughter of Mrs. T. F. Maloney and the late T. F. Maloney. After graduating from the Asbury Park High School, she entered the Monmouth Memorial School of Nursing and completed her course in 1941. She is the wife of Dr. Norman Nathanson and the mother of two children, Drew age six and Kathy age three.

Mrs. Nathanson is the first physician's wife from Monmouth County to be elected to the presidency of the Woman's Auxiliary to The Medical Society of New Jersey. She has served the State Auxiliary for four years, having been Monmouth County president in 1946 and 1947. In 1947, she was State *Hygeia* Chairman and a Director. During 1948, she was Conference Workshop Chairman and held the office of president-elect.

As State *Hygeia* Chairman, she promoted the plan of placing by gift subscription, the magazine in all the secondary schools in New Jersey. The Monmouth County Auxiliary, during Mrs. Nathanson's presidency, initiated a drive for volunteer blood donors for the local blood banks, organized a "Better School Health Council", formulated plans to provide funds for a nurses' scholarship in the local hospitals and obtained radio time for weekly transcribed health broadcasts. Mrs. Nathanson was Monmouth County Public Relations Chairman during 1948. Some of the principal activities of this committee included assisting the county medical society with the promotion of Public Health Week. For this occasion, she designed a booth depicting County Auxiliary Projects. This booth was among those exhibited at the convention hall in Asbury



Park during the State-wide observance of Health Week. She was the Monmouth County Chairman of coin box collections during the National Heart Association fund raising drive.

During the war, she was active as a first aid instructor in the Red Cross in Columbia, S. C. She is a member of the Long Branch Center Theatre Group and is on the membership committee of the Long Branch Child Study Group.

NATIONAL CONVENTION

Haddon Hall will be the headquarters for the Annual Meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Atlantic City, June 6 to 10.

Requests for reservations should be sent at once to Dr. Robert A. Bradley, Chairman, Subcommittee on Hotels, 16 Central Pier, Atlantic City, N. J.

AUXILIARY REPORTS

The Woman's Auxiliary to The Medical Society of New Jersey met at the Trenton State Hospital on March 14, 1949. The fifty-nine members attending the meeting were appreciative of the hospitality and the opportunity to observe and understand the great need of mental institutions. Presidents and committee chairmen reports were heard during the morning session. Dr. Harold S. Magee, Medical Director of the State Hospital, welcomed the Auxiliary members at luncheon. At the close of the meeting, there was a tour of the hospital under the guidance of the Hospital Staff.

ESSEX—Mrs. Robert C. Anderson was elected to fill the unexpired term of Mrs. Manfred Kraemer,

as president of the Woman's Auxiliary to The Essex County Medical Society. Mrs. Joseph A. Clarken will serve as second vice-president. Mrs. Stuart Hawkes is now recording secretary, and Mrs. J. J. Pecora, corresponding secretary. The Student Nurse Scholarship Fund was discussed over the WAAT "Coffee Club" program. Guest speakers were: Mrs. Lodovico Mancusi-Ungaro, chairman of the Scholarship Project, Mrs. Andrew J. V. Klein, co-chairman, Mrs. Robert Anderson, president of the Auxiliary, Miss Wilkie Hughes, Executive Secretary of the State Nurses Association, and Miss Mary Anna Cressman, Superintendent of Nurses at the Presbyterian Hospital.

On March 28, 1949, a literary tea was held at the Academy of Medicine and was a tremendous success. Members of the various women's organizations and Parent Teacher Associations expressed enthusiasm over the type of program and their appreciation of participating in a thoroughly enjoyable afternoon's extertainment. Mrs. John Torppey was chairman assisted by Mrs. Frank Forte and Mrs. Don Epler as co-chairman with Mrs. Asher Yaguda acting as moderator. On April 5, an interesting program on care of the chronically ill was presented at the combined Auxiliary and Contemporary meeting. Mrs. Asher Yaguda, Health Chairman, assisted in arranging the meeting at which plans, as recommended by the New Jersey Hospital Association were offered as a possible solution toward adequately caring for chronically ill patients.

HUDSON—The annual "Open Health Meeting" of the Woman's Auxiliary to the Hudson County Medical Society was held March 7, 1949. Mrs. William J. Gleeson, president, after a brief welcome introduced Dr. Pellagrino A. D'Acierno, president of the Hudson County Medical Society. Dr. D'Acierno, commended the auxiliary for "splendid work in the field of public health". Mrs. Gleeson, presented Mrs. Asher Yaguda, chairman of Public Relations of the Woman's Auxiliary to the American Medical Association and state chairman, Mrs. Robert B. Walker, state president and Mrs. Norman Nathanson, president-elect. Representatives from Essex and Passaic Counties were also present. Mrs. James C. Tscualas discussed the magazine *Hygeia*. The speaker of the afternoon Otto Steinbrocker, M.D., was introduced by Mrs. Fred Sachs, chairman of Public Relations. Dr. Steinbrocker spoke on "The Challenge of Arthritis and Rheumatism" and illustrated his talk with lantern slides. Tea was served following the program. On April 4, the president, Mrs. Gleeson gave a report about the recent state meeting. A study group on legislation was held at the home of Mrs. Andrew Ruoff. A card party, on February 21, was a social and financial success. Delegates and alternates appointed to attend the state convention were: Mrs. William Gleeson, Mrs. Abraham Jaffin, Mrs. John Muccia, Mrs. Sydney Chayes, Mrs. Andrew Ruoff, Mrs. Edward Murphy, Mrs. Samuel Barishaw, Mrs. Samuel Scott, Mrs. Albert Lepis, Mrs. John Varriano and Mrs. Arthur Largay. The nominating committee recommended the following panel of officers for 1949-50, all of whom were unanimously elected: president, Mrs. Sydney Chayes; president-elect, Mrs. Francesco Figurelli; first vice-president, Mrs. John Muccia; second vice-president, Mrs. Louis Norwich; recording secretary, Mrs. Morris Bresev; treasurer, Mrs. Harry Perlberg.

PASSAIC—The Role of the Teacher in Health Education was the topic presented by the Woman's Auxiliary to The Passaic County Medical Society on March 23, 1949. A dinner was given in honor of the guest speaker, Dr. Daniel Bergsma, State Commissioner of Health by the doctors and their wives. Mrs. Paul E. Rauschenbach, chairman of the Public Relations committee of the Auxiliary, opened the meeting and introduced the president, Mrs. Peter J. DeBell, who welcomed the guests. Dr. J. Allen Yager, president of the Passaic County Medical Society, acted as toastmaster and Dr. Joseph E. Mott, chairman of Public Relations Committee of the Medical Society, introduced Dr. Bergsma and acted as moderator at the informal question and answer period which followed the talk.

BOOK REVIEWS

Ophthalmology in the War Years. Edited by Meyer Weiner, M.D., Volume II (1944-1946). Pp. 977. Chicago. The Year Book Publishers, Inc., 1948. ($16.00)

This book with its previously published companion volume offers the opportunity to the ophthalmologist who was in military service (or carrying a double burden at home) to read or have ready for reference most of the ophthalmic literature published between 1940 and 1946. The material is broken down into thirty-three headings such as "Anatomy and Embryology", "Glaucoma", "Industrial Ophthalmology", "Neuro-Ophthalmology", etc. Each section has been written by an authority in the field covered, and is followed by a voluminous bibliography of international scope, which will be of utmost value to one occupied in research or in contributing to the current literature.

This volume is a proud reflection of the present state of scholarship in American ophthalmology, as its contributors are entirely from the United States. The editor and authors have made an important contribution to the study of ophthalmology throughout the world in producing such a splendid compilation of the literature. It is certain that a work of this magnitude could have been produced in no other country today. This book will be of great value to any student, research scholar, or author in the field of ophthalmology for years to come.

Jonathan L. Harris, M.D.

Lung Dust Lesions versus Tuberculosis. By Lewis Gregory Cole, M.D., pp. 496. White Plains, N. Y., American Medical Films, Inc., 1948. ($10.00)

This provocative and disturbing publication is a tribute to sustained, independent and intelligent interest in the most difficult field of chest diagnosis, that of non-specific, disseminated pulmonary fibrosis. Dr. Cole's discussion of endogenous factors in the production of pulmonary fibrosis and nodulation is a reasoned and scientific challenge to other investigators in this field. The review of the roentgen diagnosis of tuberculous lesions in 1910 and of the necessity for survey work in chest disease in the armed forces of the first world war reveal the stimulating influence Dr. Cole has exerted in these important fields. Many will wish that at this latter date he had championed rather than opposed the newer methods of inexpensive chest survey work. Perhaps his voice would have helped achieve the ultimate goal of routine chest investigation, the premarital chest film as the partner of the premarital Wassermann test. This is a consummation devoutly to be wished.

The chapters on x-ray theory and photomicrography explain the uniform excellence of the illustrations and x-ray reproductions. They will bore the clinician to tears. The publisher is to be commended for faith in Dr. Cole's theories, both in publishing the book and making the original material widely available for study.

THOMAS J. ORMSBY, M.D.

Synopsis of Psychosomatic Diagnosis and Treatment. By Flanders Dunbar, M.D. With the assistance of Jacob Arlow, M.D., Raymond Hussey, M.D., and others. Pp. 501. St. Louis, The C. V. Mosby Company, 1948. ($6.50)

Maybe they should never let me review a synopsis because invariably I get so many facts in such a small amount of space that intellectual indigestion takes place. Dunbar's work here, as in all her work in psychosomatics, is really brilliant. Nevertheless, because of the vast amount of material compressed into such a small space, the average reader will get the impression so often conveyed by the movies—that the solution to the usual psychosomatic problem consists only in finding a nidus from which the difficulty springs; that this is always a discreet point; and that it is easily elicitable. We psychiatrists have struggled long periods of time with difficulties which we know (and which all other physicians in contact with the case knew) were psychosomatic. After this long period of time we have sometimes been forced to admit defeat. Books of this kind, which demonstrate the "ease" with which the psychiatrist can dispose of so many somatic difficulties (such as the common cold, colitis, impotence, gynecologic disorders, and so to the entire gamut of human ailments) cannot help but be somewhat disturbing.

With this major criticism set aside, one cannot help but be intrigued by the number of ailments that are helped by a psychiatric attack; ailments which are shown again and again by study to be either the complete results of psychic conflict or, at least, greatly complicated by psychogenic superimposition.

One psychosomatic truism which was recognized by the old family doctor is presented in italics in the book: "No degree or organic damage should blind us to the presence of complicating psychic factors." Often the physician is completely nonplused in noticing the amount of disability a relatively minor somatic complaint will produce, because he fails to bear in mind that the physical damage occurred in a living, functioning individual.

This book is recommended to those who must accept their reading in capsular form and who refuse to study the better works on the same subject by the same author.

DAVID J. FLICKER, M.D.

Minor Surgery. By Frederick Christopher, M.D. 6th ed. Pp. 1058. Phila., W. B. Saunders Co., 1948. ($12.00)

This work is the product of thirty years' experience as a surgeon and writer. It is an encyclopedic review of minor surgery, detailed, complete, up-to-date, amplified and clarified by many direct quotations from leading authorities. Each chapter is supplemented by an excellent bibliography of current literature. The chapters on minor surgical technic, with 257 references, and on preoperative and postoperative care, with 319 references, are well worth the price of the entire book. This volume will appeal to the practitioner whose surgical experience is relatively limited, to the house doctor who is given considerable responsibility, and to the busy surgeon who needs a quick reminder upon occasion. It is well printed and is easy to read. Many of its illustrations are taken from current medical literature and are very good. The index is adequate.

The few minor errors and omissions do not detract too much from the general worth of the book. For example, extended comment on the dangers of novocaine fails to mention the prophylactic action of barbiturates. Blocking the digital nerves is illustrated correctly on page 568, but on page 177 is shown a method that could almost be guaranteed to destroy an occasional finger. On page 185 one finds several difficult methods of removing a ring from a swollen finger, but the simple and effective "string method" is omitted. The treatment for "extreme shock in major injuries" given on page 21 is antediluvian and likely to do as much harm as good. Beginning on page 936, however, one finds a complete and authoritative discussion of shock and its treatment, with an excellent bibliography.

The book weighs four and a quarter pounds and a good part of this is due to the inclusion of many items not usually thought of as minor procedures, as for example, correction of "lop ear", drainage of Ludwig's Angina, tenorrhaphy, drainage of hand infections, dilatation and curettage for incomplete abortion, division of the femoral vein, treatment of fractured spine, and other procedures of similar magnitude.

The author, in the preface, implies that this book is for relatively untrained man, who is called upon to do surgery of this type. It seems to me that Dr. Christopher might properly lay more stress upon the difficulty and dangers of many of these proced-

ures, and upon the advantages the patient would derive from being sent to a competent surgeon. Contrary to the author's implications, there rarely should be any necessity, in these days of rapid transportation, for any difficult surgical case to be handled by a practitioner needing this book to tell him what to do and how to do it. However, used with judgment and discrimination, Christopher's *Minor Surgery* should be a valuable addition to any doctor's library.

ROBERT H. HILL, M.D.

The Clinical Management of Varicose Veins. By David Woolfolk Barrow, M.D., Lexington, Kentucky. Pp. 155. New York, Paul B. Hoeber, Inc., 1948. ($5.00)

Dr. Barrow has written a clear, concise, short treatise on his personal experience with the treatment of varicose veins. He states in the preface that the monograph is based on observations made on approximately 2500 patients and not on statements found in the literature. An attempt has been made to give a dynamic and graphic picture of the changes which occur through the various stages of development of varicose veins and not merely detail the pathology seen which results from these changes in the physiology of the peripheral circulation. Theoretical considerations have been minimized for the sake of brevity. Specific therapeutic procedures have been described and pictured in detail. For these reasons it is very practical and presents the essentials of treatment in a simple, readable manner. It is profusely illustrated with clear line drawings and pictures to illustrate the points involved.

The author has quickly disposed of the historic, anatomic and physiologic background of the subject and devoted his attention to the practical side of the problem commonly seen in practice. The emphasis is placed on the best methods to relieve the patient. The causes of failure and the dangers of inadequate understanding of the specific problem are made clear. It is an explicit account of how a successful specialist treats his own patients.

This book is recommended to all practitioners who treat varicosities of the lower extremities. No matter what amount of experience the individual may have, the book is applicable to his practice and to his patients.

STUART Z. HAWKES, M.D.

The Acute Bacterial Diseases; Their Diagnosis and Treatment. By Harry F. Dowling, M.D. With the collaboration of Lewis K. Sweet, M.D., and Harold L. Hirsh, M.D. Phila. and London, W. B. Saunders Company, 1948. ($6.50)

This is a practical volume. It stresses the necessity of making an etiologic diagnosis to achieve best results in treatment. The section on diagnosis is good; general clinical considerations are discussed first and then further diagnostic procedures are suggested.

The section on general measures in the treatment of infectious diseases is rather sketchy. The paragraph on the "Open Top Oxygen Tent" is poor since no mention is made of the need to cool the incoming oxygen. A section on the treatment of meningitis in general should have been included. Also lacking is mention of the quick 5-tube method to determine the level of spinal fluid sugar.

The chapter on serum therapy is good and that on the sulfonamides is excellent. The discussion about penicillin is complete but too much emphasis is placed on serum levels. Apparently the tissue concentration is more important. Streptomycin is discussed briefly, but the more recent additions to our antibiotic armamentarium are not mentioned. Chapters on the individual bacterial diseases are adequate but that on gonorrhea seems too long. The section on pertussis is good, but the discussion of hemophilus influenza infections is not thorough. We cannot agree with the authors' recommendation to immunize school children and hospital personnel against scarlet fever.

The references and index are good and the material is readily accessible. There are some excellent color plates but some of the diagrams are too small to be read easily. On the whole this is a good small volume.

BERNARD GERMAN, M.D.

The Rehabilitation of the Patient; Social Case Work in Medicine. By Caroline H. Elledge, Asst. Professor in Social Work, McGill University, Montreal. With a foreword by Philip D. Wilson. Pp. 112. Phila., J. B. Lippincott Company, 1948. ($2.50)

This compact book studiously and seriously covers a very wide field. The author's approach is logical and indicates a keen, sympathetic understanding of people, their needs, hopes and problems. Her case material is presented purposefully and simply. Her characters are human beings, unpredictable and in need of all kinds of help. The help that is available through many resources in the community.

The book is provocative and stimulating, especially to the medical social worker, in its early recognition of physical, social and emotional components. It is full of challenge to all the people involved in the teamwork group, and the medical social worker finds herself questioning: "What did I do? Did I recognize the need? Did I meet it adequately? What was the patient's response and why?" Miss Elledge shows her knowledge, training and humility in both the subjective and objective presentations. She is always aware of the patient as an individual, alert to his reactions, has a knowledge of the community resources and knows when and how to use them.

She develops the teamwork concepts, with the physician in the role of the leader, the expertness of the medical social worker in the direct service to the patient,—her relationship to the doctor and the family and to the community as a whole.

This book should have constructive usefulness since it demonstrates when, where and how case work can make a contribution in the rehabilitation process. As a medical social worker I recommend this book to all medical social workers and physicians for the purpose of emphasizing the need for working together in behalf of the patient.

MINNIE EDELSCHICK.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **May, 1949** **No. 5**

MEDICINE and its associated sciences can take great pride in the report which follows—it gives the progress to date of a large-scale cooperative endeavor in which many individuals and diverse agencies pooled skills and resources in testing a new therapeutic agent—streptomycin, against an old disease—tuberculosis.

STREPTOMYCIN IN THE TREATMENT OF TUBERCULOSIS

Pulmonary Tuberculosis. Streptomycin has a limited but important place in the therapy of pulmonary tuberculosis, but should be withheld if other treatment is available and likely to be satisfactory. Streptomycin therapy is not advisable in: (a) chronic fibroid or fibrocaseous pulmonary tuberculosis; (b) acute destructive and apparently terminal tuberculosis, except for symptomatic relief; (c) minimal pulmonary tuberculosis with a good prognosis.

Streptomycin appears to be most effective in recent, acute, fairly extensive and progressing pulmonary tuberculosis and is particularly recommended for tuberculous pneumonia. Streptomycin therapy is regarded as especially suitable for: (a) acute tuberculous bronchopneumonia; (b) acute bronchogenic spread, particularly if the acute process prevents much needed collapse therapy and (c) chronic disseminated finely nodular tuberculosis without large confluent areas of destructive disease.

As streptomycin can only be used for a few months in the therapy of this disease because of the emergence of resistant organisms, it is imperative that streptomycin be used during the course of the disease when the greatest benefit can be expected. *Streptomycin is best used as an adjunct and should be worked into an over-all plan of treatment which will often include collapse therapy and generally includes institutional care. The Committee looks with disfavor on the practice of utilizing streptomycin prior to institutional care or as an alternative to collapse therapy.*

Ulcerating Tuberculous Lesions of Mucous Membranes. Streptomycin, preferably administered by the parenteral route, is recommended for laryngeal, tracheal, bronchial, oropharyngeal, and enteral ulcerations, and tuberculous otitis media. It is less effective in granulomatous lesions in this area, still less so in diffuse inflammatory lesions and ineffective in cicatricial lesions.

Tuberculous Sinuses and Fistulae. Streptoymcin is recommended in the treatment of draining tuberculous sinuses and fistulae. Usually, however, superior results are obtained only with streptomycin and suitable surgery.

Genito-urinary Tract. Streptomycin is recommended in the treatment of tuberculosis of the genito-urinary tract usually as an adjunct to other therapy.

Tuberculosis of Bone, Joint and Cartilage. Streptomycin is advised in the treatment of tuberculosis of bone, joint and cartilage with other therapy. Timing in the use of the drug is important.

Tuberculous Meningitis. Intensive therapy with streptomycin, administered both parenterally and intrathecally, is imperative for the treatment of tuberculous meningitis. Two grams a day should be given intramuscularly for from four to six months. It is recommended that not more than 50 mg. of streptomycin be administered intrathecally every second or third day during treatment. This may be given daily for the first week. Frequent and serious neurologic complications may arise as a result of this regimen, yet complete clinical remission is observed in an appreciable number of cases. The response is best when treatment is early so it need not await bacteriologic confirmation of the diagnosis. How-

ever, to avoid treating a nontuberculous meningitis, streptomycin should be used only when an active tuberculous focus is present, or, the cerebrospinal fluid in culture is negative for ordinary pathogens but is characteristic of tuberculous meningitis.

Miliary Tuberculosis. Streptomycin therapy is indicated in the treatment of acute hematogenous (miliary) tuberculosis and chronic hematogenous disseminated tuberculosis. Good clinical judgment is needed to differentiate these from nontuberculous pulmonary infiltrations especially in the early stages. Early treatment is desirable and in some cases should be started before bacteriologic confirmation. Bone marrow biopsy and culture may aid early diagnosis. Treatment should continue for at least four months. One to two grams a day is adequate dosage. In acute miliary tuberculosis, development of tuberculous meningitis is common. After the diagnosis is established, routine lumbar punctures are recommended. Intrathecal therapy should be added whenever the cerebrospinal fluid is abnormal.

Tuberculous Lymphadenitis. Streptomycin may be employed in the treatment of tuberculous lymphadenitis especially in the acute stage. The attendant toxicity and the emergence of resistant bacteria are factors limiting its use.

Tuberculous Peritonitis and Pericarditis. Streptomycin is recommended in the treatment of tuberculous peritonitis. Clinical remission is common and relapse relatively infrequent following adequate therapy. Streptomycin may not be expected to alter the sequelae of tuberculous pericarditis but appears to have a beneficial effect on the acute process itself.

Dosage and Duration of Streptomycin Therapy. Probably no single streptomycin regimen is suitable for all forms of tuberculosis. Except in miliary tuberculosis and tuberculous meningitis, it is advised that streptomycin be administered in one half gram doses, i.e., one gram daily, at 12-hour intervals in courses of 42 days. Until further study, it cannot be recommended that injections be made less frequently or for shorter periods of time than here indicated.

Toxic Manifestations of Streptomycin Therapy. Toxic manifestations are relatively infrequent on the dose recommended above, i.e., one gram a day. Nevertheless the following reactions do occur and the dangers should be weighed against the disease hazards: (a) a disturbance of vestibular function; (b) deafness, in very rare instances; (c) serious renal damage appears rarely without preexisting renal disease; (d) cutaneous rashes occasionally—serious exfoliative dermatitis rarely.

Emergence to Predominance of Drug-resistant Tubercle Bacilli. The disappearance of drug-sensitive strains of tubercle bacilli and their replacement with drug-resistant strains handicap prolonged effective therapy with streptomycin. This is usually avoided by confining duration of therapy to 42 days.

Dihydrostreptomycin. The Committee has reviewed limited experimental and clinical evidence concerning dihydrostreptomycin, a hydrogenated derivative of streptomycin. The pharmacological and biological properties of dihydrostreptomycin and streptomycin are quite similar. Dihydrostreptomycin is less toxic than streptomycin in its action on the vestibular apparatus, although other toxic reactions sometimes occur. It appears to be tolerated by some patients who are hypersensitive to streptomycin. These advantages warrant extensive clinical trials.

Report of Clinical Subcommittee of Committee on Medical Research and Therapy, Chairman, John D. Steele, M.D., American Trudeau Society, American Review of Tuberculosis. January, 1949.

SUPPLIED BY

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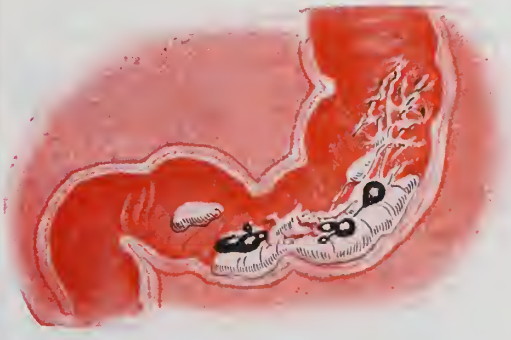
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—Hurst, A., in Portis, S. A.: Diseases of the Digestive System, ed. 2, Philadelphia, Lea & Febiger, 1944, p. 692.



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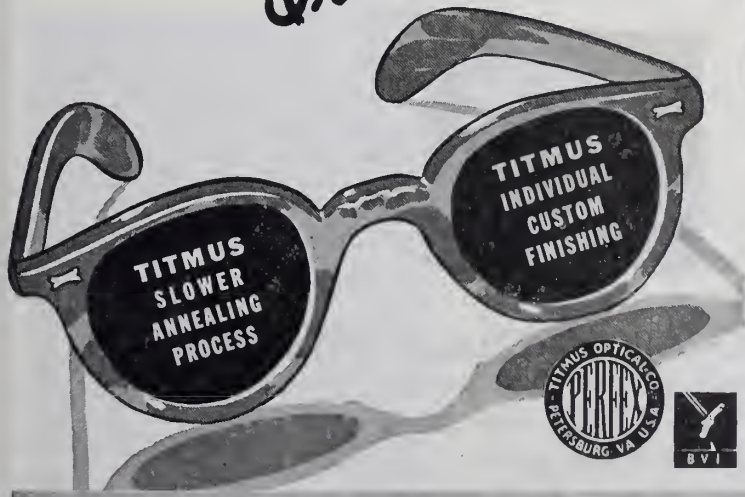
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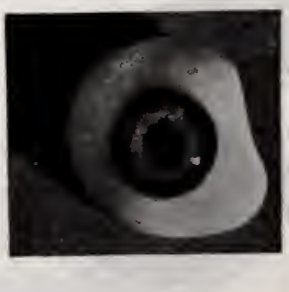
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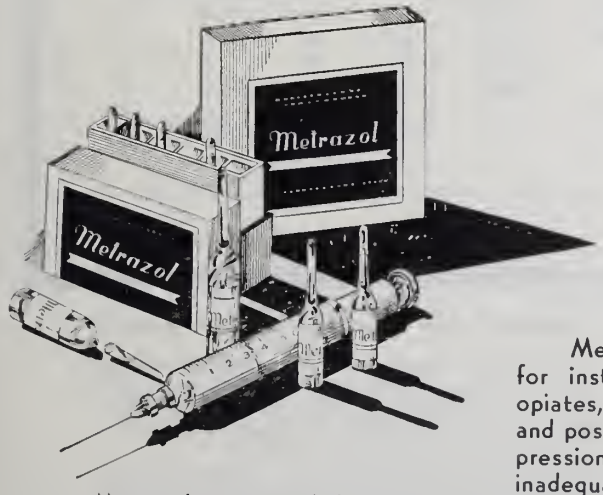
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50-60 . .	41	32	5	4
60-70 . .	34	22	8	4
70-80 . .	18	16	0	2
80- . .	3	3	0	0
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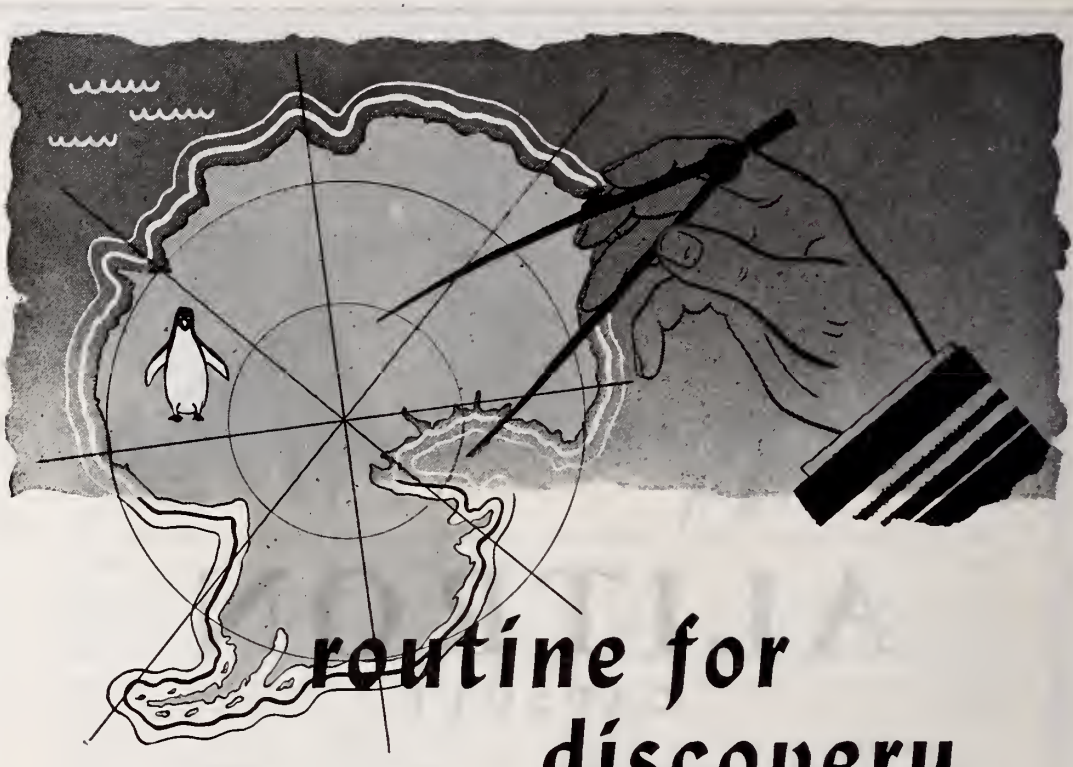
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(1) Joslin, E. P.: Postgraduate Med. 4:302 (Oct.) 1948. (2) Kemper, C. F.: Rocky Mountain M. J. 45:1092 (Dec.) 1948. (3) Pollack, H.: New York Med. 4:15 (Dec. 5) 1948.

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Plainsboro, New Jersey



Further evidence of the safety of 'Benzedrine' Sulfate therapy

More data, showing that 'Benzedrine' Sulfate, in proper dosage, produced no toxic effects, have lately been published in a study by Caveness.[1]

He gave the drug for 14 consecutive weeks to 23 unselected hospital patients whose ages *averaged 65 years.* Daily dosages over the period ranged from 5 to 30 mg. The author observes:

"... no significant changes were noted in the cardiovascular, urinary, hematopoietic, or respiratory systems..."

From this study, it would appear that 'Benzedrine' Sulfate may be safely used in the treatment of depression in the aged.

1. New York State J. Med. 47:1003



Benzedrine* Sulfate tablets • elixir

(racemic amphetamine sulfate, S.K.F.)

*T.M. Reg. U.S. Pat. Off.

one of the fundamental drugs in medicine

Smith, Kline & French Laboratories, Philadelphia



Optimal Nutrition

SO VITAL FOR OPTIMAL HEALTH

In the achievement and maintenance of optimal health, no other single influence looms so vital as sound nutrition. In fact, so important is this principle to preventive medicine that *optimal nutrition* has become the basis of all modern day health programs.

When nutritional health is threatened, as in dietary restrictions often imposed by disease, or during convalescence, or when the nutrient intake is insufficient because of other reasons, the *multiple dietary supplement* Ovaltine in milk is especially useful for overcoming nutrient deficiencies of the diet.

Three glassfuls daily may readily supplement even poor diets to adequacy. Easy digestibility makes its many valuable nutrients—vitamins, minerals, biologically complete protein, and food energy—quickly available. The pleasing flavor adds to its wide applicability and usefulness.

The table below gives the amounts of nutrients in three glassfuls of Ovaltine in milk.

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Ovaltine

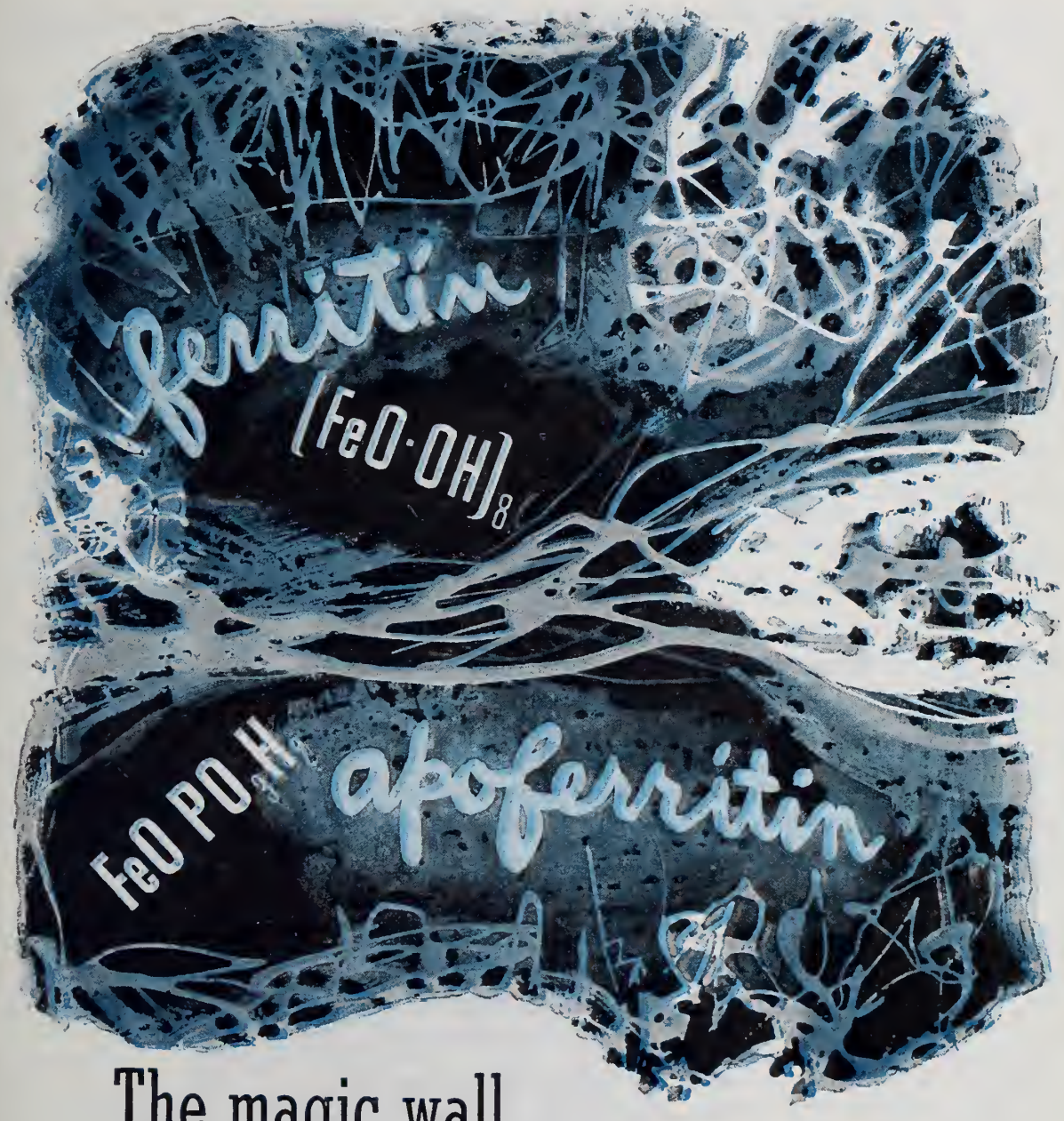
Three servings daily of Ovaltine, each mode of ½ oz. of Ovaltine and 8 oz. of whole milk, provide:*

CALORIES	676	VITAMIN A	3000 I.U.
PROTEIN	32 Gm.	VITAMIN B_1	1.16 mg.
FAT	32 Gm.	RIBOFLAVIN	2.0 mg.
CARBOHYDRATE	65 Gm.	NIACIN	6.8 mg.
CALCIUM	1.12 Gm.	VITAMIN C	30.0 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN D	417 I.U.
IRON	12 mg.	COPPER	0.5 mg.

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.





The magic wall

Nowhere in the realm of biology exists so highly specialized and so biologically efficient a membrane as the mucosa of the human intestinal tract. Within this mucous membrane, about five millimeters thick, there take place the most intricate biochemical reactions designed to facilitate absorption of the products of digestion.

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Lederle research is proceeding actively in the field of the nutritional anemias, to the end that these almost completely preventable diseases may one day essentially disappear from daily clinical practice.

*REG. U. S. PAT. OFF.

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY
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References: 1. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:442, 1936.
2. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:452, 1936.
3. Sahyun, M.: *Am. J. Dig. Dis.*, 13:59, 1946.

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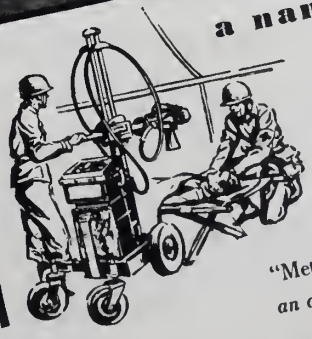
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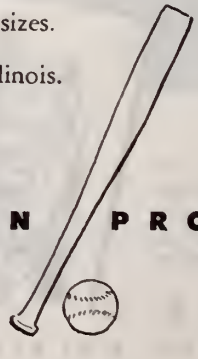
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AT VITAMIN TIME

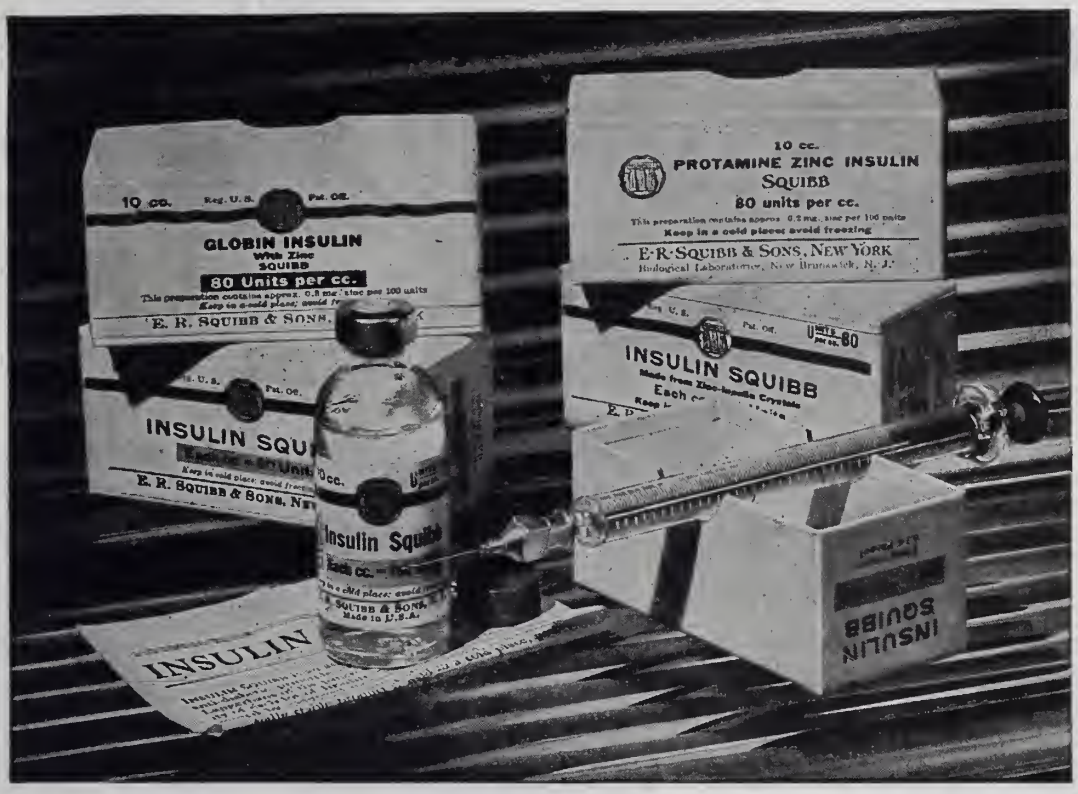
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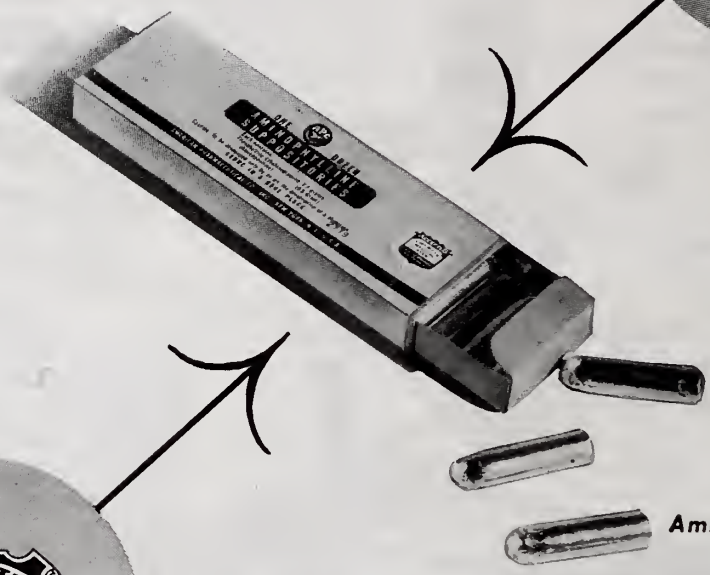
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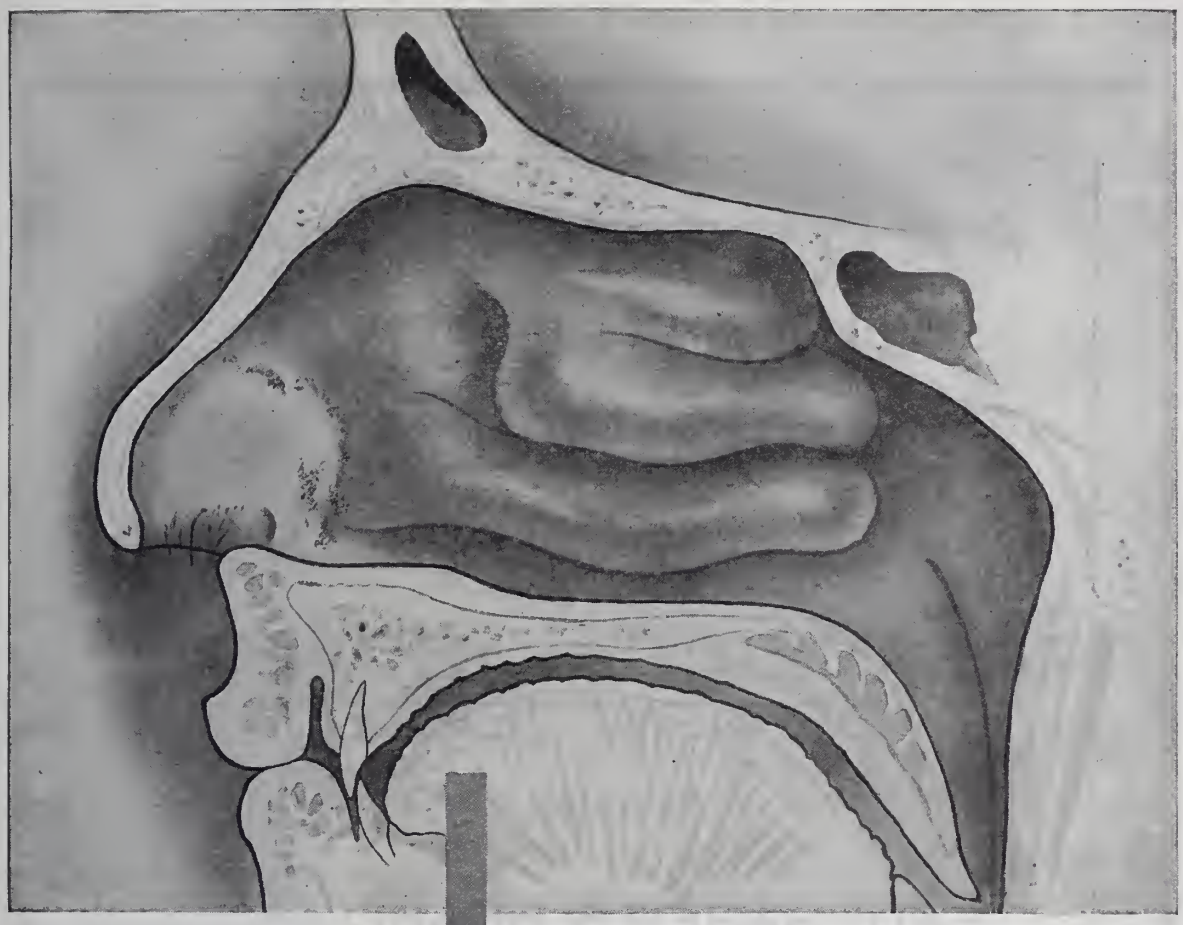
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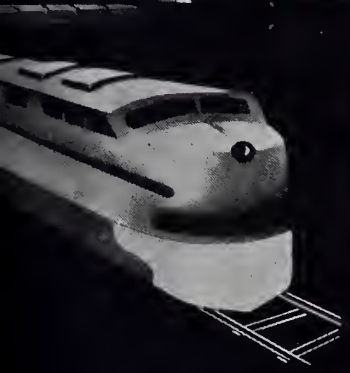
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Relief from allergic symptoms is usually obtained with one TRIMETON 25 mg. tablet three times daily; in some patients half this dosage is sufficient. The action of TRIMETON lasts from four to six hours.[2]

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BIBLIOGRAPHY: 1. Brown, E. A.: Ann. Allergy 6:393, 1948. 2. Wittich, F. W.: Ann. Allergy 6:497, 1948.

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These pills exhibit the powdered dried leaf and flowering top of Datura Stramonium, alkaloidally assayed and standardized, and therefore contain in each pill 0.375 mg. (1/170 grain) of the alkaloids of stramonium.

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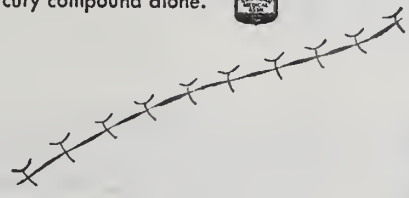
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IN THE SEQUELAE OF EPIDEMIC ENCEPHALITIS

"a summation of activity"

Council on Pharmacy and Chemistry, A.M.A.
J.A.M.A. 137:789 (June 26) 1948.

In Tincture Mercresin,* secondary amyltricresols and orthohydroxyphenylmercuric chloride "supplement each other so that the mixture is approximately twice as germicidal for Staphylococcus aureus as the component cresol derivatives alone and seven to ten times as germicidal as the mercury compound alone."



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1. antisepsis of superficial wounds or infections,
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Secondary-amyltricresols	1/10%
Orthohydroxyphenylmercuric Chloride	1/10%
Acetone	10%
Alcohol	50%

(Tinted): 2 oz., 4 oz., pint, and gallon bottles

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Soft-diet patients down in the mouth?

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6 varieties:
Beef, lamb, pork, veal, liver, heart

Simply putting soft foods on a tray is no assurance that patients will put them away. That's why so many physicians today are recommending Swift's Strained Meats—flavorful, real meats they're sure patients will eat! Prepared specially, soft and smooth, Swift's Strained Meats are so good they tempt even the most apathetic appetites!

Nutritionally, Swift's Strained Meats are an excellent base for a high-protein, low-residue diet. They're highly digestible—easy to eat. Rich in biologically valuable proteins, they make available simultaneously all known essential amino acids—for optimum protein synthesis. Further, Swift's Strained Meats supply hemapoeitic iron and goodly amounts of natural B vitamins. Let protein-rich Swift's Strained Meats put palatability in menus for your soft-diet patients!

To vary patient's menus, six different Swift's Strained Meats: beef, lamb, pork, veal, liver, heart. Convenient—ready to heat and serve!

The makers of Swift's Strained Meats invite you to send for the new physicians' handbook of protein feeding, written by a doctor, "The Importance of Protein Foods in Health and Disease." Send to:

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All nutritional statements made in this advertisement are accepted by the Council on Foods and Nutrition of the American Medical Association.



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The adequately treated diabetic patient has actual proof from laboratory reports to show that his condition has responded to treatment. If the patient is in coma, then proper treatment will save his life. If he is a chronic invalid because his diabetes has been neglected, then correct management will not only prevent death from coma but may restore the patient to good health. Few therapeutic procedures can be used by the physician with such precision and with such assurance of benefit as the modern treatment of diabetes.

For prompt effect—

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Pharmaceutical and biological products are playing an increasingly important role in the practice of pediatrics. Several diseases of childhood are preventable with routine immunization procedures. Palatable vitamin preparations assure infants and young children of prophylaxis and cure of vitamin deficiency syndromes. Sulfonamides, penicillin, and streptomycin have sharply reduced the toll of many infectious diseases. Lilly research scientists are concerned daily with the yet unsolved problems facing the pediatrician. Sharper tools for the physician's competent hands are certain to result.

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PUBLISHED MONTHLY SINCE SEPTEMBER, 1904

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ANNUAL PHYSICAL EXAMINATION

Elsewhere in this issue* we publish a description of an annual physical examination project in a practitioner's office. As Dr. Marin properly points out, the dentists have educated the public to accept the annual or even semi-annual diagnostic "check-up". Why cannot physicians do the same? One can think of a variety of excuses, but the principal factor is probably this: most private practitioners simply have not thought of it, and have not worked out any system of (a) doing a routine yet adequate examination on a symptom-free patient, and (b) interpreting to the patient the wisdom of making an appointment for another examination next year. While we do not know how many patients in Dr. Marin's unique experiment, failed to make or keep their follow-up appointments, we do know that many of them did return; and to that extent at least, the program was successful. The advantages of such a project are obvious and numerous; and not the least is the sense of security which the patient gets out of being given a clean bill of health by a doctor who, because of the manifest thoroughness of his study, really knows what he is talking about when he says "no disease".

Presumably only a small part of the project's value would be lost if the metabolism test and electro-cardiograph were omitted when not affirmatively required. With these subtractions, the procedure comes well within the skills and equipment of the general practitioner. The whole idea is challenging, and—in this concrete form—refreshing. Skeptics will say that it won't work. You can't tell until you try it.

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ORIGINAL ARTICLES

DIAGNOSIS AND MANAGEMENT OF SMALL BOWEL OBSTRUCTION†

EUGENE V. PARSONNET,* M.D., Newark, N. J.

In 1912, working with experimental animals with small bowel obstruction, Hartwell and Hoguet demonstrated that the life of the animal could be greatly prolonged by the intravenous administration of salt solution. As a result of this observation, the predominant theories about the systemic effect of uncomplicated intestinal obstructions — namely intoxication and "nervous shock"—began to be discarded. These theories are still accepted in only few quarters today. At present, the most widely accepted doctrine is that the effects of obstruction are brought about by metabolic disturbance and subsequent derangement of the processes necessary to life.

The systemic effects of intestinal obstruction are the result of the effects of obstruction on the bowel wall; and the cure of obstruction cannot be accomplished without restoring the bowel to its normal condition. These effects are caused mainly by disturbance of circulation in the wall either by distention or interference with blood flow through the mesenteric vessels.

Many contradictory and inconclusive results have been obtained by studies on the effects of distention. Two basic conceptions best summarize our present knowledge: First, that every disturbance of bowel function is caused by an increase in tissue pressure in the bowel wall; second, that there are two stages of obstruction. In the first stage the bowel is tense, pale, dry or with drops of albuminous fluid on its peritoneal surface. The bowel is suffering injury. Albuminous fluid from the bowel wall and its mesenteric border accumulates in the abdomen. There is no absorption of any material by way of the mesenteric vessels. There is no peristalsis and no secretion in the lumen. In the second stage, the bowel is flaccid, edematous and blue. It is recovering from injury. Albuminous fluid does not escape, but may collect in the bowel lumen. Absorption is present but diminished. Peristalsis is feeble or absent. Secretion is present but abnormal. There is vasomotor paralysis and congestion.

In addition to the effects on circulation, distention also causes disturbance in viability, motility, secretory activity, power of absorption and physical structure. When circumstances arise which cause gangrene, either as a result of distention alone, or (much more commonly) as a result of obstruction to the mesenteric blood flow, a *strangulation* obstruction exists in contradistinction to *simple* obstruction in which there is no gangrene. Proximal to any strangulated loop there usually is a simple obstruction with distention.

The gas characteristically found present in obstructed bowel arises from three sources: (1) From decomposition of intestinal contents; (2) from the blood by diffusion through the bowel wall; and (3) from swallowed air. Many interesting experiments have been performed to prove this latter point.

What causes death in bowel obstruction? No single fatal factor is predominant. The general effects are widespread and vary according to the location of the obstruction and the incidental special circumstances. Metabolic disturbances are most acute and most rapidly fatal when the obstruction is *high* in the small bowel. In such cases the predominant symptoms are productive and persistent vomiting, weakness, muscular tremors, oliguria, tachycardia and finally coma and death, which occurs in four to five days. The immediate cause of death is undetermined by autopsy. However, most authorities ascribe death to dehydration and starvation.

The disturbances brought about by *low* ob-

† Read by invitation at the Academy of Medicine of Northern New Jersey on December 15, 1948.

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struction of the small bowel are less severe. Experimental animals and humans suffering from untreated obstruction may survive such a lesion for a week or more. Vomiting is less severe and dehydration not as marked. As in high obstruction death is not adequately explained by autopsy. Dehydration certainly hastens death but experimental evidence is confusing and inconclusive. As a result of experiments by Fine, Mattersby and Gatch, we believe that death in low ileal obstruction results from the escape of blood protein from the capillaries in all parts of the body after the capillaries have been damaged by lack of oxygen. Thus, the somewhat unsatisfactory term "anoxic shock".

The local and systemic effects of strangulation obstruction are due to the added presence of proximal simple obstruction. The effects of gangrene itself depend upon its cause, its location and its extent. The danger is increased, however, in that in the presence of gangrene, rupture of the bowel and ensuing peritonitis are imminent.

Additional factors causing metabolic changes are adrenal insufficiency as a result of anoxia, and a disturbance in potassium concentration, as well as the more commonly recognized disturbances in the sodium and chlorine ions. I shall not review the theories of intoxication and nervous shock, but simply repeat that none of the many ascribed causes of death can exist in the absence of distention.

Obstruction may be briefly classified as to cause as follows:

I. MECHANICAL OBSTRUCTION.

A. Due to obturation
   1. Developmental errors
   2. Enteric cysts
   3. Foreign bodies (gallstones, etc.)
   4. Intussusception
   5. Neoplasms
   6. Inflammatory strictures as a result of tuberculosis, regional enteritis, etc.

B. Due to compression
   1. Mal or non-rotation
   2. Peritoneal bands, hernial sacs
   3. Volvulus
   4. Extra bowel tumors
   5. Meckel's diverticulum or cyst

C. Due to mesenteric thrombosis or embolism

II. FUNCTIONAL OBSTRUCTION.

1. Paralytic
   (a) From peritonitis
   (b) From reflex inhibition of intestinal musculature. (Wound dehiscence or evisceration.)

2. Spastic
   (a) Lead poisoning
   (b) Food poisoning
   (c) Metabolic disturbances, such as diabetes, leukemia, etc.
   (d) Reflex stimulation as by renal colic, etc.

On the basis of effect, obstruction may be simple or gangrenous or combined or multiple.

The relative frequency of etiologic factors is of only academic importance but obstruction due to hernia and adhesions comprises about 75 per cent of the cases in most reported series of mechanical obstruction. Probably the most common of all types of obstruction is that of functional paralytic obstruction following advanced cases of appendicitis.

DIAGNOSIS

Each of the above listed causes must be borne in mind when the diagnosis is suspected; any of the four cardinal signs (pain, vomiting, distention and failure to pass stool or flatus) should make the examining physician suspicious. The dictum that "any patient with an abdominal scar and abdominal pain has intestinal obstruction, unless otherwise proved", although always to be considered, should not close the observer's eyes and mind to the fact that a simple or strangulation obstruction may occur in a patient who has not been operated upon previously.

In mechanical obstruction the pain is sudden in onset, severe, colicky and usually periumbilical. With strangulation obstruction or late in simple obstruction the pain may be constant, and it may disappear in the late stages of the disease. Vomiting usually follows pain and varies according to the stage and location of the obstruction. The so-called "fecal vomiting" is a late symptom and is of no help in making an early diagnosis.

Accompanying distention, which is usually present to some extent, there is the associated evidence of visible peristalsis and high-pitched tinkling sounds.

Although patients may pass a small amount of flatus or stool following the onset of the disease, the history of failure to do so is a fairly constant finding and extremely suggestive.

Probably the most important diagnostic aid, once a careful history is taken and meticulous observation of the patient is performed, is the evidence elicited by x-ray examination. The most logical routine for such an examination is to take a scout film with the patient in either the supine or erect position, preferably the latter, and to rule out large bowel obstruction by means of a barium enema. However, a word of warning: the interpretation of such x-rays is not easy, and occasionally the most experienced may err. Only recently a patient who developed obstruction following a ruptured appendix was said to have had paralytic obstruction. Our other findings, however, suggested differently, and operative intervention disclosed a combined type of obstruction, paralytic in the lower ileum, with a spastic mechanical obstruction due to adhesions above this point.

Generally, the diagnosis must be considered in a patient with a sudden onset of pain, with tinkling peristalsis, constipation, supportive x-ray findings, with or without a definite history pointing to any known etiologic factor.

An additional word as to diagnosis. One of the most commonly missed causes of obstruction, is incarcerated femoral hernia. One need only bear in mind the possibility and run a finger gently over the femoral regions to ascertain the presence or absence of such a condition.

The question of differentiating between simple and strangulation obstruction has always interested me, and although I have read, heard and spoken with many surgeons who feel that certain signs are pathognomic of strangulation, in my experience I find that only in the very rare early case can I make such a differential finding. I have seen a completely devitalized bowel requiring excision within six hours of the onset of symptoms. There is no great feat in making the diagnosis in late stages of the disease when the obvious signs of complicating infection have set in.

Every case of simple obstruction, unless relieved, will almost invariably become strangulated and gangrenous. Therefore, it is the part of wisdom and safety to relieve operatively every case of mechanical obstruction with few exceptions within 24 hours, during which time even gangrene, threatened or actual, may be dealt with successfully.

TREATMENT

One must include in his perspective of the disease, not simply a bowel whose contents do not pass normally, but rather an obstruction which brings about wide effects locally and systemically depending on the cause, character, location and extent of the lesion.

Before the days of understanding of electrolyte balance, antibiotics, and proximal decompression by means of the various types of tubes, no surgical emergency held so much dread for me, (and I am sure for others), as that of intestinal obstruction. The picture of blown up, dehydrated patients with one or more enterostomy openings is still a vivid and terrifying one.

Intestinal obstruction still presents serious problems, technical difficulties and a still too-high mortality. Yet on the basis of our present knowledge and armed with antibiotic weapons, we now can set forth a routine for treatment that offers ever increasingly good results.

Early operation following attempted intubation is the method of choice in attempting to cure intestinal obstruction. However, patients whose obstruction is relieved by surgery may still die if the metabolic disturbances are not corrected. Therefore, no obstruction is so urgent that the patient cannot be adequately protected by the administration of fluids in the form of blood, plasma, blood substitutes and glucose in water or saline. Once the dehydration, anoxia and hypoproteinemia are treated and intubation performed, surgery then becomes possible. Although successful small bowel decompression may be difficult or impossible, simple emptying of the stomach is often sufficient to relieve the distention. I advocate the Miller-Abbott tube, but its usefulness should be carefully appraised for each case. Only in the occasional case of mechanical ob-

struction should intubation be used to the exclusion of surgical care. However, if one can be certain that the obstruction is on a functional basis, intestinal intubation may then be depended upon as the method of choice in treatment. One of the great problems confronting the team of physicians treating such patients is the passing of intestinal tubes. Although occasionally it is impossible to lead the tube past the pylorus, the patient cooperation of surgeon and roentgenologist will, in many cases, bring about success. Once the tube has passed the pylorus, it is our present practice to permit it to descend to the three foot mark and arrest its progress at that point. Except when multiple lesions exist, the telescoping action of the small bowel on the tube is sufficient to relieve distention in most cases of obstruction. However, if one accepts dogmatic teaching and in all cases arrests the progress of the tube at any given point (three feet according to a recent article), intubation, although successfully performed, will not effect decompression. One should not expect that in every case large amounts of fluid will be evacuated since the greater part of the distention is due to gas in the intestinal tract.

The method of dealing with the particular problem at hand depends upon the causative factor. I know of no condition in which it is so necessary to use every possible aid. The presence of nasally passed tubes, of enterostomy tubes, a knowledge of the direction of the bowel flow, adequate exposure, experienced assistants and anesthetists, and good operating room equipment, are all factors that facilitate the surgical approach and of which one must take advantage. In the management of strangulation one must exert great patience. The resection of bowel in the second stage of obstruction is a hazardous procedure in which one deals with devitalized tissues. Unless the mesenteric blood vessels are occluded, one very commonly may observe that bowel segments, which are quite black, soon assume a viable appearance with returning circulation after release of the obstructing factor. When one deals with markedly distended loops of bowel, a careful slowly performed decompression of a well protected segment of bowel will frequently make it possible to explore adequately and manage successfully the obstruction.

There is still a place for enterostomy in late cases of obstruction. When decompression by intubation is ineffective, and in the case of the elderly patient in poor condition with marked distention, a blind tube enterostomy under local or spinal anesthesia should be done. However, if upon opening the peritoneal cavity, the surgeon observes bloody fluid, search must be made for a strangulated loop of bowel; and this, if found, should be treated by resection or exteriorization.

Twenty-five years ago, the mortality rate was about 75 per cent. Today, after a steady decline, a study of most large series reveals a rate of less than 10 per cent. I should like, before closing, to discuss a few cases being currently treated which illustrate several of the points I have made.

CASE ONE

Age 45, female weighing 260 pounds. Eleven previous operative procedures, with typical symptoms of partial mechanical obstruction. A Miller-Abbott tube passed with difficulty and decompression brought about after the tube was permitted to pass to the 5½ foot mark. Present status: tube clamped off, patient eating without discomfort, passing flatus, having normal stools. This serves to illustrate that in the occasional case of mechanical obstruction cure, whether temporary or permanent, may be effected by intubation alone.

CASE TWO

Age 62, female, operated on for ruptured appendix. Patient was ambulatory six hours postoperatively. She developed typical paralytic obstruction on the second day. On the third day, active "tinkling peristalsis" was noted, and the abdomen became markedly distended. Miller-Abbott tube did not leave the stomach. Despite this, there was marked decrease in distention. Pain persisted and despite x-ray findings (which were interpreted to indicate paralytic obstruction) operation was performed and a complete mechanical obstruction of the terminal ileum due to adhesions was released. Miller-Abbott tube was milked throughout the pylorus and patient subsequently recovered uneventfully. This serves to illustrate the importance of relying on clinical, as well as x-ray findings, the effectiveness of stomach decompression and the co-existence of mechanical and paralytic obstruction.

CASE THREE

Male, age 63; diagnosis of intestinal obstruction without antecedent history of surgery. Diagnosis of pancreatitis was considered because of associated back pain. Successful intubation was done with moderate relief of distention. Pain persisted. Bar-

ium enema was negative. X-ray of abdomen revealed obstruction of small bowel. At operation, the small bowel was seen strangulated and adherent to an acutely inflamed gall bladder. Bowel was viable. Gall bladder was removed and the common duct drained. Post-operative distention was marked. He was well on the third post-operative morning. Dehiscence of wound occurred at noon of that day. The wound was repaired under spinal anesthesia. The patient became markedly anoxic and dehydrated with marked paralytic obstruction. He was treated with large quantities of blood, plasma, glucose and oxygen. The patient is now recovered and about to be discharged from the hospital. This case serves to illustrate practically every complicating factor: a paralytic obstruction as a result of the shock and subsequent inhibition of small bowel musculature following dehiscence, and the positive curative measures of fluid, protein and oxygen replacement.

Each case of intestinal obstruction presents its own particular problem. The preparation of the patient is well understood today. The surgical approach, however, always must be individualized. With this greater understanding and the awareness of the profession as to early diagnosis, with the support of the roentgenologist, the internist and with improved surgical technics and chemotherapy, our mortality rate will approach a negligible figure.

89 Lincoln Park

CONTACT DERMATITIS DUE TO TOPICAL ANESTHETICS

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Eczematous contact dermatitis due to topically applied local anesthetics is now seen with increasing frequency. This may be due to the more wide-spread use of medicaments containing local anesthetics. Many proprietaries contain local anesthetics. Such use has become more frequent through over-the-counter sales, and through recommendations of the physician who prescribes it (in the so-called ethical product) and in his prescriptions.

The Medical Economics Physicians' Desk Reference [1] lists topical anesthetic-containing remedies under the following headings:

1. Analgesics—local (7:5) (Seven preparations, out of which, five contain a topical anesthetic).
2. Local anesthetics (28:28).
3. Analgesics—local and topical (12:9).
4. Anesthetics—rectal topical (12:10).
5. Anesthetics—surface (11:11).
6. Anesthetics—topical (13:10).
7. Antipruritics (55:55).
8. Analgesics—topical (23:13).
9. Anesthetics—local and topical (13:13).
10. Anesthetics—ophthalmologic (7:7).

Substances classified as topical anesthetics include benzocaine, intracaine, surfacaine, butyn, pontocaine, diathane, tutocaine, monocaine, stovocaine, nupercain, orthoform, and larocaine.

Several of these substances are related chemically and sensitization to one may cause sensitization to others. Rothman, Orland, and Flesch [2] list the following chemically allied anesthetics:

GROUP I.
1. Procaine
2. Larocaine
3. Tutocaine
4. Monocaine
5. Pontocaine

GROUP II.
1. Diothane
2. Stovaine
3. Metycaine
4. Intracaine
5. Apothesine

Schwarzchild [3] showed that sensitivity to orthoform is accompanied by sensitivity to neo-orthoform, to which it is closely related structurally, and not to substances of a very different configuration. Rostenberg and Kanof [4] found that the chemical structure of sensitizing agents and their similarity in structure were important factors in the production of sensitization. Goodman [5] stated that it was

1. *Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals. Medical Economics, Inc.*, Rutherford, N. J.
2. Rothman, S., Orland, F. J. and Flesch, P.: Journal of Investigative Dermatology. 6:191, (June 1945).
3. Schwarzchild, L.: Arch. f. Dermat. und Syphil. 156:432, (1928).
4. Rostenberg, A. and Kanof, M. N.: Journal of Investigative Dermatology. 6:201, (June 1945).

important to determine whether the whole molecule or a portion thereof or a combination of radicals was the responsible factor in the production of sensitization. Sulzberger and Rostenberg [6] called attention to the frequent occurrence of multiple sensitivity in patients with eczematous dermatitis, from substances related and chemically non-related. Rothman, Orland, and Flesch [2] showed that a group sensitivity may exist; that one may become sensitive to one or several or the entire group. Within each group variations in sensitizing potential may be seen, as reported by Strauss.[7]

A history of prolonged use of one or of several medications containing local anesthetics is not uncommon. The chronicity of some cases of dermatitis is at times on a basis of a low-grade, more or less, marked sensitivity to the topical anesthetic, as is seen in the following case:

CASE ONE

A 59 year old woman was first seen on December 2. She had a history of varicose veins for many years. In March she developed an ulcer on her lower left leg. Her physician prescribed an ointment containing chlorophyll and benzocaine which she used for months. She developed a slowly progressive eruption up the entire leg. Itching was severe on the leg and was accompanied by swelling, erythema, scaling, and thickening, with areas of excoriation and crusting. Patch tests with the ointment gave a 4 plus reaction. Benzocaine alone (5 per cent concentration in petrolatum) gave a 2 plus reaction.

In many instances the sensitivity is much more pronounced and the reaction of greater severity, as can be seen in the following two cases:

CASE TWO

A 31 year old white man was seen at home. He had a universal eruption. About two weeks previously, he developed a mild rash on the side of his neck, to which he applied a proprietary containing benzocaine. The eruption became worse and he applied a different proprietary, also containing benzocaine. The eruption then spread over the upper body and arms. He developed a painful sore throat and a temperature of 103. Sulfadiazine was given. Within two days the eruption exploded. The entire body reacted, from scalp to toes. There was marked edema, vesiculation, large oozing areas, especially, in the body folds and on the neck. Giant bullae developed on the palms. Itching was intense and intractable. Constant baths and topical medication were finally effective. Response to various anti-histaminics was fair. The process subsided with universal exfoliation. The patient was in bed for about one month. It is now three months since the attack and he still has itching on the palms and soles; he has an occasional mild eruption on the arms and legs. He gave a history of a previous skin eruption after the use of a benzocaine-containing proprietary and also after the ingestion of sulfadiazine in 1943. He was not patch tested due to the fear of lighting up the process.

CASE THREE

A 46 year old white woman was first seen on May 10, with a generalized eruption. The process began on her feet in January, at which time she was treated for frost-bite. The rash spread to the areas behind her knees. She used various ointments, some suggested by pharmacists, some prescribed by physicians. She also had been given professional samples which she had applied liberally. A few days before the present attack, she had used a 2 per cent "Surfacaine" ointment. The out-break was acute and generalized. She showed a red-brown thickened oozing skin, with areas of crusting, most marked on the feet, popliteal spaces and other folds of the body, on the face and particularly, in the post-auricular areas, ears, and scalp. After the acute attack had subsided, patch testing revealed a 4 plus reaction to benzocaine, "surfacaine", nylon hose, para-phenylenediamine, resorcin, and butesin picrate. Her original outbreak on the feet and behind the knees was no doubt due to nylon stockings. Patch testing caused a mild lighting up of all the previously involved areas and the reaction in the tested sites lasted for weeks. At present the patient is still having eruptions on her feet, popliteal spaces, and neck.

Cases 2 and 3 illustrate the multiple sensitiveness that can be found in persons sensitive to topical anesthetics. Rogers [8] reported reactions to sulfanilamide in a patient previously sensitized to topical anesthetics. Sulzberger, Kanof, and Baer [9] observed cross-sensitization to para-aminobenzoic acid, chemically related to benzocaine (ethyl amino benzoate) in two of eight cases with sulfonamide dermatitis, one of which also reacted to procaine. Meltzer and Baer [10] cite a patient sensitive to benzocaine, who later reacted to sulfaguanadine and still later to a sunburn preventive lotion containing monoglycerol para-aminobenzoate. In my case the patient was sensitive to both benzocaine and sulfadiazine. Goodman's patient [5] showed multiple sensitivity to the procaine

5. Goodman, M. H.: Journal of Investigative Dermatology. 2:53, (April 1939).
6. Sulzberger, M. B. and Rostenberg, A.: Journal of Immunology. 36:17, (1939).
7. Strauss, M. J.: Journal of Investigative Dermatology. 6:403, (June 1947).
8. Rogers, E. B.: Journal of the American Medical Association. 111:2290, (1938).
9. Sulzberger, M. B., Kanof, A. and Baer, R. L.: Journal of Allergy. 182:92, (March 1947).
10. Meltzer, L. and Baer, R. L.: Journal of Investigative Dermatology. 6:5, (July 1948).

group of anesthetics. In my case 3, the patient was sensitive to both benzocaine and "surfacaine". Dermatitis due to azo-dyes in nylon stockings and cross-sensitization to para-phenylenediamine, as seen in this case, were described by Dobkevitch and Baer.[11] Bloch[12] reemphasized that "certain cases of multiple sensitizations actually represented cross-sensitizations among a number of chemically and hence immunologically related compounds". He also directs attention to the fact that in cross-sensitizations substances to which the skin had not been previously exposed, could elicit an allergic reaction. Witten and Shair[13] emphasize that known contactants should be avoided, since not only is there a possibility of reaction, but also that repeated attacks increase the level of sensitivity.

The persistent eruption seen in these two cases may be due to repeated contacts in every day life with substances that contain these sensitizers. For example, cross-sensitization between benzocaine and para-phenylenediamine (a basic dye) is often seen. Contact with shoe polish, newsprint, fur and cloth dyes, among others, is difficult to avoid.

Benzocaine, to choose one of the most commonly used medicaments, is frequently a cause of sensitization. Underwood[14] reports that in 400 cases of dermatitis of the feet, twelve cases (or three per cent) were sensitive to it. In six of these, the contact was on the feet and in the remaining cases, on other areas of the body. The index of sensitivity to benzocaine is high; exact figures are difficult to obtain, but I believe that it is at least five per cent of all people using benzocaine. The first use of the drug may lead to sensitization. A reaction may occur in six to ten days after only one application. Usually, the reaction occurs between the tenth and twenty-first days and consists of itching, redness, swelling, vesiculation, and crusting. The reaction is localized at first, but will spread with continued use of the medication. The picture is that of allergic eczematous contact dermatitis, but it differs in the length of time required to subside. A re-exposure, in the immediate future or after years, once sensitization is established, with or without such a history, will cause a reaction within twenty-four to forty-eight hours. It will be similar to that described above. The hyper-sensitive state, as a rule, persists for a long time and perhaps for life.

The presence of other eczematous diseases makes the individual more susceptible. Rough dry skin and moist fine skin also do this. Sulzberger and Rostenberg[6] submitted evidence to show that persons affected with recent or active eczematous dermatitis of contact type, were more susceptible to sensitization through external application of certain simple chemical substances, than were non-eczematous individuals. Cutaneous anesthetics become fixed or adhere to the horny layer and thus maintain a prolonged contact with the epidermis, with subsequent prolonged reaction.

In many cases immediate relief to a severe itching is desired. One is loath to withhold the use of an effective medicament. Certainly, a topical anesthetic is valuable, but it should be restricted to a non-eczematous process. It should be administered for a short time only, since use for more than one week will often lead to sensitization.

Patch testing should be done before treatment of chronic dermatitis because of the chance that sensitization may be present. This simple procedure will often save weeks of disability and discomfort.

Self-medication for dermatoses, as self-medication for any disease, is to be condemned. The more so since an increasing number of proprietaries contain local anesthetics and it appears likely that reactions will be seen with greater frequency. Progress has been made in educating physicians to the more common untoward effects encountered with sulfonamides and penicillin. In the future, perhaps, we will be able to say the same for topical anesthetics.

11. Dobkevitch, S. and Baer, R. L.: Journal of Investigative Dermatology. 9:203, (1947).
12. Bloch, B., cited by Baer, R. L.: "Some Examples of Cross-sensitization in Allergic Eczematous Dermatitis". In preparation.
13. Witten, V. H. and Shair, H. M.: Annals of Allergy. In Press.
14. Underwood, G. B., *et al.*: Journal of the American Medical Association. 130:249, (February 2, 1946).

412 Sixtieth Street

RHEUMATISM

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"Rheumatism" is here used to designate a general condition affecting all parts of the body, one of the symptoms of which is pain in the joints, and the structures surrounding the joints; that is, the organs of locomotion. It is an acute disease so frequently attacking patients that sometimes they don't recover from one attack before they are stricken by another.

For years it was contended that rheumatism was due to infection some place in the body. But now that tens of thousands of teeth and tonsils have been ineffectively removed, it is conceded that you can expect very little from these procedures. No one has been able to isolate any specific organism from the synovial membranes or blood of these patients and it has been impossible to transmit the disease to small animals for experimental purposes; consequently all we actually know about rheumatism is that it is a "calcium dyscrasia". Free calcium gets into the blood and is carried through the blood stream, being deposited in the synovial membranes. This deposit causes roughness of the synovial membranes and irritates the sympathetic filaments which supply this tissue. This, in turn causes pain and swelling. The swelling is due to effusion of serum into the joints in much the same way that a cinder causes watering of the eye.

Free calcium in the blood can be caused only by improper assimilation of food. When food is properly assimilated, the calcium is assimilated also. Then it would be deposited in the bones where it belongs and not in the joints and other structures of the body. Improper assimilation of food is caused by: (1) eating too much. Everyone in this country eats more food than he can assimilate. It takes three meals a day to build the body of a child, but three meals a day are too much for some adults. Most of the people of the world live on a handful of rice and a little fish. Now, while these people may be underfed, surely we are overfed. (2) eating when tired. A fatigued stomach will not "digest" anything. (3) Eating when emotionally disturbed, or in anticipation of emotional disturbance. Rheumatism follows accidents, shock, anger, fear or emotional disturbance. Everyone is familiar with "nervous indigestion".

SYMPTOMS

Proliferative arthritis and degenerative arthritis often are found side by side in the same patient. Among the early symptoms are so-called "growing pains" in children, general debility, pain in feet, bunions, corns and pain in other joints. It is distinguished from other conditions by the fact that all of the joints are affected and not just one joint. The patient may complain of pain in only one joint, but careful examination will show that there is both pain and spasm in other joints. In children, the valves of the heart are involved; in adults, the muscles and arteries of the heart are affected. This is evidenced by swelling and induration of the legs and shortness of breath. The heart is always, to some degree, affected by rheumatism in any of its forms and the pain and deformity are nature's way of protecting the patient's life. The patient is being warned to desist from what he is doing. If he persists he may become disabled. As the condition progresses, the joints become swollen and deformed, muscles become atrophied from disuse, tendons become frozen in their sheathes and ultimately the patient becomes totally disabled.

TREATMENT

There is always a large psychosomatic element in patients suffering from this disease. They have been told that there is no cure and consequently they worry about what is going to happen to them. This fear must be overcome. The patient's food must be limited in amount but not in variety. They must be instructed to rest at least thirty minutes before they eat or drink anything at any time and they must not eat if they are emotionally disturbed or going to do anything which makes them "nervous".

Many remedies have been brought forth as "cures" for rheumatism and many patients have, in fact, been cured by these nostrums. It makes very little difference what remedies you use so long as the patient is assured he will recover. Most patients suffering from rheumatism go to some spa if they can afford the expense. Thousands have been thus "cured" of their disease, at least temporarily. Consequently, I use sodium sulfate in teaspoonful doses, because it is the active principle in all "curative waters". It removes mucus from the intestinal tract and prepares it for normal assimilation of food. The intestinal tract is like blotting paper and when it is coated with anything it will not absorb nutriment normally. This is followed by acidophilus culture which restores normal bowel function; but unless the patient stops poisoning himself the condition will recur.

While the disease can not be transmitted to small animals, it is simple to give a horse rheumatism. A horse is the only animal who will do what man does. He will overeat. He will eat under any circumstances unless he is controlled. If a horse gets into a granary he will die from overeating. He does not know when to stop. It might be possible to give the disease to smaller animals if they were given supplementary food intravenously or intramuscularly. I hope another Banting will carry on from this point and will develop a hormone which will control calcium metabolism.

CASE ONE

This woman came under my care in 1921. She had been totally disabled from arthritis for three years previously. Her knees were flexed at 90° and fingers were flexed at 90°. All of her joints were sore and limited in motion. I admitted her to the hospital, straightened her joints under an anesthetic, gave her sodium sulfate and bacillus acidophilus. She recovered completely and has remained well ever since, in spite of the fact that I knew nothing about the cause of her disease until years afterwards. She had been working in a bank where she was made bookkeeper. This produced fear of failure, sense of inadequacy and a general psychosomatic upset ending in total disability. When she recovered she became a school teacher. If she had gone back to the bank, chances are her rheumatism would have recurred.

CASE TWO

Another woman came under my care in 1930 suffering from a slight exudate in the peroneal tendon of the right leg. She was having trouble with her husband and was advised that she was in a dangerous situation and might become disabled. She failed to follow advice and did become totally disabled. Right knee was flexed to 90° and right hand flexed to 90°. I administered sodium sulfate and bacillus acidophilus. She entered the hospital for correction of the deformity. She made a complete recovery and has perfect function in her joints. She has earned her living ever since and has remained free from rheumatism.

CASE THREE

A woman came under my care in 1939. Her joints were extremely tender. The hips were fully flexed on abdomen and knees fully flexed on thighs. X-ray showed fusion of hip and knee joints. However, there was a slight amount of motion in all these joints. Patient recovered from her arthritis in less than a year, after which the deformity of her joints was corrected. She had perfect function in left hip and left knee and 50 per cent function in right hip and right knee. She was able to walk and has suffered no further pain or discomfort.

These three patients illustrate fairly well what can be accomplished in the treatment of rheumatism if you can get cooperation and what happens when cooperation is refused. They are selected from several thousands in my records.

637 Central Avenue

ARMY HIRING CIVILIAN PHYSICIANS

Opportunities are now available for physicians interested in service in the Far East to work with the Army of Occupation in Japan. This is civilian employment, not an Army commission. Salary is $6800 per year with quarters provided at no cost to the employee. The government will furnish transportation to and from Japan. Physicians accepting such appointments are expected to remain in Japan for at least two years. Provisions can be made for wives and children to join the doctors after their arrival in Japan.

Physicians interested in this challenging opportunity may secure further details from the Civilian Personnel Division of the Overseas Affairs Branch, Office of the Secretary of the Army, Washington 25, D. C.

NEONATAL HAZARDS

R. A. Weinstein, M.D., Newton, N. J.

Although there has been gratifying reduction in the death rate of the new born infant, wider knowledge of the emergencies encountered in this hazardous period, and what to do to meet these situations, would contribute further to lower it during this most critical time.

In 1935, infant mortality rate [1] was 55.7 for 1000 live births. By 1945, this fell to 38.3. It has been estimated that by 1947, this was still further reduced so that no more than 35 babies were lost per 1000 live births. In spite of this, over 100,000 die in the first year of their life; two thirds of these in the first month. In 1947, there were 3292 neonatal deaths in New Jersey.[2] Of these 33 per cent were in the first twenty-four hours. More than 50 per cent were due to prematurity. Twenty of the 3292 were due to violent or accidental deaths, 379 to congenital malformations, and four to tumors; thus, 1814 or 56 per cent were attributable to causes (other than prematurity) which could have been reduced, lessened, or entirely avoided.

Of the formidable number of conditions that may confront the physician at this time, comparatively few account for most of the deaths.

The most usual causes are:

1. Prematurity
2. Anoxia
   (Atelectasis)
   (Asphyxia)
   (Pneumonia)
3. Trauma
   (Intracranial injuries)
4. Infections
5. Hemorrhage
6. Neurological
7. Anomalies

PREMATURITY

Premature birth takes a higher toll of infant life than any other pediatric condition. In 1944, throughout the country, 33,120 infants died because of prematurity, most of whom succumbed in the neonatal period.[3] The majority of deaths occurring in this period are the results of anoxia or trauma.[4] Reducing this mortality is, for the most part, an obstetrical responsibility. Efforts directed at reducing the incidence of premature birth, and improving the method of care after birth, will serve in prolonging intrauterine life and maintaining that life after birth. Since many premature deaths are due to anoxia and intracranial injury, much of what will hereinafter be written is applicable to this group.

ANOXIA

To contribute to the reduction of the neonatal death rate, continued emphasis must be placed on the prophylaxis and treatment of anoxia, which is the most frequently encountered hazard in the neonatal period. *Anoxia* is a deficiency in the oxygenation of the blood stream. *Asphyxia* or *apnea* is an interference with this oxygenation process. Clinically, it may be expressed as the lack of spontaneous effort to take a breath within thirty seconds after the cord is severed. After this period, definite cerebral changes from anoxemia take place. These may become permanent, if oxygenation does not occur within one or two minutes.

The most frequent causes of asphyxia are found either in the mother or in the handling of the mother during labor. Maternal age, especially after thirty-five, may be a factor. Other factors are primiparity, maternal anemia or diseases, prolongation of labor, injudicious use of analgesics, type of delivery and accidents associated with labor (such as premature separation, placenta previa, prolapse of cord, knotting, kinking and compression of cord). Recognition of these causes suggests the prophylaxis and/or treatment. Usually more than one cause (aside from cerebral hemorrhage) is present which initiates this condition.

Asphyxia has been usually classified as being either the pallida or the livida types. These vague terms have little significance, and may prove to be confusing. Flagg's classification [5] clearly indicates certain types of therapy.

1. Davis, M.D.: Public Health Nursing (Sept. 1948).
2. State of New Jersey, Bureau of Vital Statistics (1948).
3. Editorial and Comment: Journal of the American Medical Association, 136:558 (Feb. 21, 1948).
4. Potter, E. L.: Journal of the American Medical Association, 124:336 (Feb. 5, 1944).
5. Flagg, P. J.: *The Art of Resuscitation.* Reinhold Publishing Corporation (1944).

1. Depression (mild asphyxia). Infant can be aroused, responds easily to stimulation, muscle tone good, reflexes, although depressed, are present. Breathing suppressed because of mucus plugs or amniotic fluids.
2. Spasticity (moderate asphyxia). Shallow respirations occurring at long irregular intervals; muscle tone poor to absent; some reaction to aspiration of the pharynx and glottis.
3. Flaccidity (severe asphyxia). Respiration at long intervals or not at all. Appears livid or pallid; muscles are completely flaccid and jaw is relaxed. All reflexes are absent. The cardiac impulse may or may not be present.

Certain important suggestive signs indicate to the physician that the baby about to be born is not receiving sufficient oxygen. These are:

(A) Violent fetal activity at or near term.
(B) Sudden excessive activity during labor.
(C) Fetal bradycardia persisting between uterine contractions, with irregular rhythm.
(D) Fetal heart rates above 160 and below 100 per minute.

Resuscitation technics vary considerably, and the methods have been subject to much controversy; however on two basic principles, there is complete agreement:

1. A clear open air way must be maintained.
2. Oxygen must be carried to the lungs.

Russ and Strong[6] suggest the following major principles:

1. A minimum of handling.
2. Immediate warmth.
3. A clear open air way.
4. Oxygenation of the blood stream within thirty seconds of severing the cord.

Of primary importance in resuscitation attempts, one must avoid severing the cord until there has been complete cessation of pulsation, since this deprives the baby of between a hundred and two hundred cubic centimeters of important blood, and further deprives it of 25 to 30 per cent of its oxygen carrying power. While waiting for the cord to stop pulsating, the doctor should wipe off the face, nose, and mouth of the infant. When the cord has been severed, the baby should be placed on a flat surface where there is adequate warmth.

There has been much controversy[7] over the use of the intratracheal catheter,[8] but most feel that it is not only simple to use but often a life saving measure. In using this catheter, the nose should be aspirated first since this constitutes a powerful reflex stimulation of respiration, which in mild cases, may be sufficient in itself. If there is still no attempt to breathe, the catheter should be introduced gently for about one-half inch into the trachea which is aspirated, and then (by means of the resuscitator's own breath) the chest is gently inflated and then allowed to deflate at a rate of about twenty-five times per minute. Caution must be observed not to over-inflate, as much damage may be done. Deflation is unnecessary as expiration is provided for by the elastic recoil of the lung.

Mechanical resuscitators are of questionable value, and pressure of over 15 millimeters of mercury may damage lung tissue if too enthusiastically administered. As soon as even a short rhythm of respiration is established, 100 per cent oxygen should be administered. Carbon dioxide, although no longer used in the majority of clinics, still finds many advocates who use it in a five per cent mixture with ninety-five per cent oxygen. In many cases this seems to cause a cessation of the previously established rhythm.

Since the carbon dioxide content of the blood of asphyxiated infants is above normal, "carbogen" is contra-indicated in resuscitative measures. Later, when respiration has been established, it can be used advantageously to increase the respiratory amplitude.

Stimulating drugs such as alpha-lobeline, coramine, metrazol, adrenalin, etc., have little or no beneficial effect in establishing respiration, and cannot improve on aspiration and insufflation as a reviving technic. The after care of the resuscitated new born (which is too frequently overlooked) is of equal importance to that of the resuscitation itself. It is especially important in babies who have been moderately or severely asphyxiated. The following principles should be observed.

1. Maintain body heat (preferably an incubator).
2. Continuous oxygen for six to twelve hours.
3. No feeding for first twelve hours.
4. Careful periodic examination of the baby.

6. Russ, J. D., and Strong, R. A.: American Journal of Obstetrics and Gynecology, 51:140 (August 1947).
7. Stringer, R. M.: Canadian Medical Association Journal, 57:140 (August 1947).
8. Roberts, M. H.: Journal of the American Medical Association, 139:439 (Feb. 12, 1949).

TRAUMA

Intracranial disorders associated with birth which are evidenced in the neonatal period, may be classified under three headings.

1. Intracranial hemorrhage.
2. Anoxemia.
3. Fracture of the skull.

The first two conditions are found together so frequently that it is often very difficult to assess what symptoms are due to the hemorrhage and what are due to the anoxemia. The latter is much more the serious, not only as the greater cause of death, but also as regards subsequent cerebral damage.

Intracranial hemorrhage is venous in character in the new born, and is usually one of the following types:[9]

(A) Subdural.
(B) Extradural.
(C) Subarachnoid.
(D) Intraventricular.

Subdural hemorrhage is the commonest type, and it may break through from the arachnoid into the subarachnoid space. Intratentorial hemorrhage is due to tears in the free edge of the tentorium, with rupture of the great vein of Galen and the inferior sagittal sinus. Causes may be antepartum, that is, due to the injuries in fetus in utero. Intra-partum causes include long, difficult or instrumental deliveries, breech birth, precipitate labor, version and extraction; or mechanical causes such as tight cord around the neck; and prematurity with the accompanying immature state of the venous walls and the low blood prothrombin level. Postpartum causes include fractures of skull subsequent to birth and hemorrhagic diseases of the new born.

Should the hemorrhage be extensive, the outcome is usually a stillbirth. If less severe, the infant is born in a state of anoxia. It has been shown that while a physiologic degree of anoxia will stimulate function of the respiratory center, a pathologic degree renders it functionless. Since anoxia is highly dangerous to the baby, it is important that methods of resuscitation as above outlined should be carefully used.

A variety of symptoms is presented by the infant with subdural hemorrhage. There is restlessness and sleeplessness, agitated activity and distress, and "cerebral cry" which is indicative of intense headache. Often, there are wild darting movements of the eyes and a "moaning" respiration. There may be head retraction, opisthotonos, or ocular symptoms such as nystagmus, unequal pupils, ptosis or strabismus. There may be rigidity of one or more limbs or paresis of a limb or of one side of the body. Twitching, convulsions and choreiform movements may occur. Atelectasis, shallow respiration, chest retraction, cyanosis, projectile vomiting, and inability to suck or swallow are common symptoms. There may be sweating, a rise in temperature, and if the hemorrhage is any size, there is an increase in fontanel tension.

Complications which frequently arise are atelectasis (often the immediate cause of death) bronchopneumonia, dehydration, fever and urinary infections.

Many obstetricians[10] feel that the Vitamin K analogue should be given both to the mother and to the infant, thus raising the blood prothrombin level and diminishing the tendency to hemorrhage. The infant should be handled as little as possible, and the head of the cot should be raised, thereby lowering the pressure in the cranial venous system. Feeding, changing and sponging are to be carried out in the bassinet until all active symptoms have disappeared. Oxygen is a prime necessity if anoxia is present. One-quarter of a grain of phenobarbital (as often as every four hours) may be given to combat the restlessness, twitching or convulsions when present. If there is feeding difficulty, spoon feeding or gavage may be used. For infants who can neither suck nor swallow, a continual subcutaneous or intramuscular drip using one-fifth normal saline and four per cent glucose, is beneficial. Because of the functional inefficiency of the new born baby's kidney and the difficulty it experiences in concentrating electrolytes, Campbell[9] feels that it is unwise to use normal

9. Campbell, Kate: Medical Journal of Australia, 2:433 (Sept. 27, 1941).
10. MacPherson, A. I. S.: British Medical Journal, 2:433 (Sept. 27, 1941); also, Williams, P. E.: Canadian Medical Association Journal, 44:275 (March 1949); also, Lehmenn, J.: Lancet, 246:493 (April 15, 1944); and, Taylor, E. S.: Rocky Mountain Medical Journal, 45:211 (March 1948).

saline solution. She recommends that the rate be half as many minim drops per minute as the baby weighs in pounds for the first day. This gives one and one half ounces per pound of body weight per day and may be increased accordingly as the baby gets older.

When much resuscitation has been required and/or if there is obvious atelectasis, penicillin may be administered for the first two or three days using from 3000 to 5000 units every three hours.

Although some authorities use lumbar puncture both as a diagnostic and therapeutic procedure in these cases, most pediatricians avoid it, since in too many new borns they get bloody taps or red blood cells in the spinal fluid. Microscopic examination is too unreliable to insure diagnostic accuracy. And lowering tension by tap, frequently renews the hemorrhage.

Possible sequelae in intracranial hemorrhage include: spasticity, paresis, mental defects, epilepsy, chorea, athetosis and hydrocephalus. It is hard to assess the amount of damage due to the hemorrhage, and the amount due to the existing anoxia. Extradural hemorrhage is rare and occurs in skull fractures or sinus rupture. If the former, treat as a fracture; the latter is usually fatal. Intraventricular hemorrhage and subarachnoid hemorrhage are usually anoxemic in origin and occur mainly in premature infants who are anoxemic and atelectatic. Symptoms most commonly are noticed during the first day, although they may occur later. There is a sudden dramatic onset with piercing cry, nystagmus, twitching, convulsions, tense and bulging fontanels, vomiting, and high temperature. The condition is usually fatal within a few days.

Improved obstetrical care will reduce neonatal mortality due to intracranial damage. Since this is one of the chief causes of atelectasis, the maintenance of an adequate oxygen supply and supportive treatment is of primary importance in its treatment. The tendency has been to over-treat in this condition. The infant suffering with intracranial injury should be handled as little as possible. Vitamin K, spinal drainage and parenteral administration of fluids is of little value, and the last should be avoided if possible. Oral administration of fluid should be postponed until the sucking and swallowing reflexes are well established. Oxygen, heat, quiet and fluids in that order, are the therapeutic aims during the critical first seventy-two hours of life.

INFECTION

Infection constitutes one of the most serious hazards in the neonatal period. Fever, as a guide to the severity of any infection (intestinal, respiratory, or other) is entirely unreliable. Indeed, some of the severest infections at this time of life are often afebrile, or accompanied by a subnormal temperature. This is due to the infant's lack of systemic response. And some of the higher fevers may be present, without demonstrable infection due to the lability of the water balance.

Treatment of fever itself should be limited to hydration, preferably cool saline enemas.[11] The antipyretic coal tar drugs such as aspirin or acetphenetidin are contra-indicated. Whatever applies to the new born applies more so to the premature.

The cause of epidemic diarrhea is unknown, but a virus is suspected. As with all other infections, prophylaxis promises the best protection for these infants. This involves rigid cleanliness in the nursery, aseptic technic as nearly as possible by both nurses and physicians, and isolation and quarantine to exposed infants. Treatment requires initial starvation, restoration of water and electrolyte balance, correction of acidosis by the administration of dextrose and amino acids, relief of anemia and hypoproteinemia by means of blood and plasma and an adequate administration of vitamins.

Otitis media, pneumonia, and meningitis should be combatted by adequate administration of antibiotics.

Impetigo and furunculosis should be treated by isolation, penicillin and/or streptomycin, following blood and lesion cultures. White[11] is opposed to the application of sulfonamides in ointments or lotions, since sulfa sensitiza-

11. White, P. J.: Nebraska State Medical Journal, 33:13 (January 1948).

tion may occur. Penicillin ointment or xeroform topically is much safer.

Infection originating in the umbilicus and extending by way of the umbilical vein to the liver, and thence into the general circulation is a serious condition. This should be treated with large doses of penicillin with from 25,000 to 50,000 units per kilogram of body weight per day.

Urinary tract infections, though relatively uncommon in the neonatal period, do occur. These may be associated with anatomic abnormalities. Urine cultures must be made so that proper antibiotic therapy can be given.

Infections of the eye have been brilliantly overcome by the use of both systemic and local use of sulfas, penicillin, and recently aureomycin.

HEMORRHAGE

Diagnosis of hemorrhagic diseases of the new born (such as hemolytic anemia, thrombopenia, hypothrombinemia and aplasia) is a controversial problem. As suggested by Prentice,[12] the following recommendations have been generally accepted. "If, in addition to local hemorrhage of traumatic origin, the infant develops spontaneous internal or external hemorrhage of areas not directly related to the injuries, the case should be classified as hemorrhagic disease of the new born." The bleeding, commencing usually within the first three days of life, is usually from the alimentary tract, though it may occur from any organ or tissue. Frequent red cell counts and hemoglobin estimations are important in determining whether the bleeding is continuing or has ceased. Since the bleeding time may be prolonged in conditions other than hemorrhage, reliance on this factor alone is unwise, and prothrombin content of the blood may prove extremely helpful.

Although the essential treatment of blood loss from any cause is replacement of this loss by blood transfusion, Vitamin K should be given in all instances of hemorrhagic diseases[13] and should be continued throughout the first week of life. Hauser[14] finds that, although prothrombin time responds to Vitamin K, the effect may wear off quickly if not given for sufficient length of time. He suggests that, in this condition, in addition to the hypothrombinemia, that there is probably a disturbance of liver function.

Infants with erythroblastosis should receive Rh negative blood by way of multiple transfusion or massive replacement, the latter with the greatest caution.

Jaundice is brought about by any one or more of the following:

(A) Over-destruction of red blood cells.
(B) Liver insufficiency.
(C) Biliary obstruction.

The condition known as "physiologic jaundice," occurring usually between the third and fifth day of life, presents a mild degree of jaundice and is most frequently seen in the premature and weak infant. It is believed that some liver insufficiency is probably present. Hemolytic jaundice, occurring usually before the second day of life, which rapidly increases in intensity, is more serious. A mild form in which there is slow destruction of the blood and a mild degree of jaundice has been called "anemia of the new born". The more rapid form of destruction in which there are varying amounts of erythroblasts or nucleated red blood cells has been termed erythroblastosis fetalis.

Jaundice, in the presence of clay-colored stools, an essentially normal blood picture, and a negative Wassermann, is pathognomonic of congenital obstruction. True obstructive jaundice is usually fatal; however, anastomosis of the gall bladder to the stomach or the duodenum when the hepatic and cystic ducts are patent, may be life saving.

NEUROLOGIC FACTORS

Oxygen lack is the most serious hazard to which the infant is subjected during the process of birth. The nervous system is the most sensitive to oxygen lack, the cortical neurones being the most susceptible. Cerebral anoxemia may be caused by:

A. *Local:*
1. Long difficult delivery after rupture of membranes.

12. Prentice, John W.: Wisconsin Medical Journal, 43:316 (March 1944).
13. Third, H.: Lancet, 251:635 (Nov. 2, 1946).
14. Hauser, F.: Annals of Pediatrics, 159:288 (1942).

2. Difficult instrumental delivery.
3. The practice of "holding up the birth" with pressure on the head.
4. Direct prolonged suprapubic pressure on the skull during breech delivery.

B. *General:*

1. Interruption in the placental circulation such as premature separation, knots in or pressure on the cord, retroplacental hemorrhage.
2. Post maturity. The post mature or "senile" placenta becomes infarcted, and there are end arteries of the villous vessels which cut off some of the fetal blood supply. This leads to cortical anoxemia and possible atrophy.
3. Premature senility of placenta. These are caused by intrauterine malnutrition.
4. Maternal toxemia.
5. Massive maternal blood loss.
6. Fetal erythroblastosis.
7. Analgesics and anesthetics. Anything which depresses the mother's respiratory center may effect the fetus and further may act on the infant's own respiratory center. The fetal heart should be watched as well as the depth and frequency of the mother's respirations in all cases in which sedatives or analgesics are used.

If cerebral anoxemia is severe, the baby is stillborn. If less severe, the infant shows cerebral symptoms. This cerebral edema or irritation is frequently seen in infants delivered by cesarean section because of the apnea encountered in these babies due to maternal anesthesia. The symptoms are difficult to distinguish clinically from intracranial hemorrhage except for the absence of localizing signs. Treatment consists in attempts to reduce the edema and to administer oxygen.

Oxygen should also be given in long labors. The time to treat intrauterine asphyxia is during labor, since by the time the baby is born, the damage is done.

CONGENITAL ANOMALIES

Anomalies of the heart, nervous system, and gastro-intestinal tract are usually the ones most commonly encountered. Obstructive lesions of the gastro-intestinal tract must be diagnosed early. Prompt treatment may prove life saving. Vomiting is usually the predominant symptom. In 1947, more than eleven per cent of the neonatal deaths in New Jersey (exclusive of stillbirths) were due to congenital malformations. These conditions, which are generally due to abnormal germ cells, are as yet unpreventable.

214 Spring Street

CAMP PHYSICIAN WANTED

The summer camp of the Big Brother Movement at Stillwater, N. J., is looking for a physician to serve for eight weeks from July 1 to August 23, 1949, as camp physician. Salary for the eight weeks would be $100 to $150 for the season, plus full maintenance, depending on the doctor's qualifications. Physicians who are interested should write at once to Mr. Russell J. Fornwalt, Vocational Counselor, Big Brother Movement, 207 Fourth Avenue, New York 3, N. Y.

MEETING OF M-S PLAN TRUSTEES

Regular monthly meetings of the Trustees of the Medical-Surgical Plan of New Jersey are held at 11 a. m. on the fourth Sunday of each month at the offices of the Plan on the 12th floor of the Kinney Building, 790 Broad Street, Newark. Accordingly notice is given that the next two meetings will be on June 26 and July 24.

AN ANNUAL EXAMINATION FOR YOUR PATIENT

Robert B. Marin, M.D., Montclair, N. J.

With the recent drive for early diagnostic procedure in cancer, the subject of periodic health examinations assumes a renewed and challenging importance. The dental profession has for many years offered its patients this type of service with gratifying results. Why so little progress has been made in the allied field of preventive medicine is something of a mystery. Whether from lack of initiative or from complacency, the number of doctors offering their patients an annual examination is infinitesimal. The solution and control of many of our present everyday ills lies in diagnostic procedure followed by yearly health examinations. In this report, I shall outline the methods and results gained over a five year period. During this time, internal medicine only was practiced.

Patients ranged in age from fifteen to eighty years, and all had preliminary diagnostic workups. At the end of a twelve months period, each patient was notified that an appointment for re-examination should be made.

The first and basic examination consisted of the following: (1) complete history; (2) thorough physical examination, including routine vaginal, rectal and prostatic; (3) complete blood count; (4) urinalysis; (5) basal metabolism; and (6) electrocardiogram. This initial examination was followed within two days by a personal survey session with the patient at which time the significance of the work done was carefully explained and, unless further procedure was indicated, a diagnosis offered and treatment instituted. Consultation was advised for disorders found outside the field of internal medicine and appointments were arranged. In all cases referred, a complete written report was requested for the patient's medical record. At this same time, the value and importance of periodic yearly examinations were pointed out and the patient informed that in the future he would receive annual notification for re-examination. The time consumed by the initial examination and follow-up survey averaged two hours, exclusive of laboratory procedure.

Yearly examinations thereafter included a complete physical, complete blood count, urinalysis and repetition of any laboratory procedure in which the patient showed previous abnormality. The original history was reviewed for progress and an interim history taken, noting any new symptoms. Average time for annual examinations was one hour, also exclusive of laboratory procedure. Follow-up was by means of a written report to the patient with any recommendations indicated. Charge for the original visit ranged from $25. to $50. on a sliding scale; re-examination on a yearly basis was $15. to $25.

Among the difficulties encountered were the following:

1. Since all patients were routinely examined in the same manner regardless of symptoms, some felt the examination to be excessively thorough. (It was found, however, that in 35 per cent of all cases examined, the primary complaint was secondary to a more serious existing condition.)

2. Referral to other physicians frequently met with criticism, since knowing the diagnosis, some patients expected treatment regardless of existing disease.

3. In the well-patient group, the significance and need for regularity of yearly examinations met with only fair cooperation.

In a five year period, only 2 per cent of all new patients seen were free from subjective complaints and had as part of their personal health programs, the desire for periodic health examinations. Aproximately 60 per cent of all new patients in 1943, however, returned for their first health re-appraisal. Forty per cent of these same patients came back for their second annual examination and about 30 per cent for the third. On fourth year notification, 15 per cent returned and on the fifth year, 10 per cent. In succeeding years up to the present time, the ratio returning for first and second annual examinations has

shown an increase. On questioning patients who had skipped one or more years, the usual explanation was that the patient, feeling good and having no complaints, thought the examination to be needless. In only a few cases has it been found that the reason was financial. Inevitably, however, these patients upon proper notification had seen their dentist within six months to one year. It is apparent, therefore, that continued education by *all* physicians is necessary to establish the precedent and habit of an annual physical examination. While this education can be facilitated by a national program or through the medium of timely articles having national publication, the greatest individual factor and opportunity lies within the grasp of the doctors themselves.

A question naturally arising would be whether the general practitioner can present this type of service to his patients. I believe the answer is an emphatic "yes". Disregarding all special equipment and laboratory procedure, the most important part of any survey is the completeness of the basic history and physical examination. Add to this a routine blood count and urinalysis and the nucleus for a diagnosis is at hand. While both a basal metabolism and electrocardiogram are routine in my office, it is well to remember that (except in certain cases) these are done primarily for record purposes. I have, for instance, found that an electrocardiogram or basal metabolism taken six to twelve months preceding a serious illness may suddenly assume a tremendous differential diagnostic value. A corresponding value may be placed on any part of a record based on annual examinations.

Among the conclusions drawn may be listed the following:

1. Periodic examinations are of significance only if preceded by a careful diagnostic work-up.

2. Education of the patient to appreciate and expect good medical care is paramount to establishing whole-hearted cooperation.

3. The doctor must at all times be ready to act as both physician and health counsellor for the patient. The correlation between family, social, sexual, and financial problems and the patient's physical health demands the close attention of all physicians to whom medicine and human relations are equally important.

4. It is within the scope of every internist and general practitioner to offer his patients both a primary "work-up" and yearly health examinations.

An analysis of the last one hundred cases shows the following diagnostic categories, grouped in order of frequency:

1. Primary psychosomatic illness with secondary physical symptoms.
2. Pelvic disorders in women.
3. Menopause and associated disorders.
4. Hypertension and its associated disorders.
5. Gastro-intestinal disorders.
6. Anemias of various types.

About one half of all patients were referred to other physicians for consultation and/or treatment. Over a five year period the specialists to whom such patients were referred were as follows. Figures indicate ratios within the group referred, and do not represent the proportion of all patients examined.

Specialists	*Ratio referred*
Dentist	5%
Dermatologist	2%
Gynecologist	35%
Ophthalmologist	5%
Orthopedist	3%
Otolaryngologist	10%
Proctologist	1%
Psychiatrist	10%
Radiologist	3%
Surgeon	20%
Urologist	5%

In this age of specialization, streamlined offices, and super drugs, it might be well for all doctors to remember that the patient is primarily looking for understanding and security as well as relief from physical distress. An inquisitive mind, proper use of the five senses, and sufficient time to allow their proper use, is still the essence of good diagnosis. An annual health survey offers to the patient the re-assurance of the continued interest of the doctor in the future of his health. Both the internist and general practitioner can offer this type of service to their patient and in doing so will make a significant contribution to the practice of American medicine.

85 Park Street

THE ROLE OF X-RAY THERAPY IN NON-TUMOROUS CONDITIONS *

M. Paul Mains, M.D., Trenton, N. J.

In the opinion of the public, radiation therapy is reserved solely for malignant conditions. Contrary to this, radiation is of value in a myriad of other conditions that are not malignant and that beset each of us throughout life. Many physicians have only a general idea of what radiation can do and because of this vagueness, have failed to utilize this therapeutic medium to its fullest extent.

SKIN DISEASES

Since the advent of radiation therapy at the beginning of the century, dermatologists and radiologists have realized that it is usual for eczematous lesions to disappear following mild irradiation. Contact dermatitis, dermatitis venenata, neuro-dermatitis, toxic dermatitis, and trophic dermatitis have all been seen to yield to x-ray. It hastens the resolution of acute eruptions and exerts an analgesic effect on the itching of chronic lesions.

The effect of radiation on contact dermatitis is not permanent unless the exciting cause is removed. Usually removal of the cause is followed by a complete and permanent clearing of the eruption. Occasionally the eruption may linger for months even after the removal of the offending substance. In these cases x-ray causes the eruption to disappear, usually permanently.

In psoriasis irradiation stands supreme in suitable cases. With the usual remedies it is difficult to maintain the necessary cooperation of the patient. Small, chronic lesions will frequently disappear following a single dose of x-ray. Practically all lesions regardless of size or duration will show regression. But psoriasis is not curable, and the radiologist is first to recognize that intractable lesions are not to be overtreated, and that recurrent lesions may fail to respond to therapy. Continued radiation of these areas is not to be carried out.

X-rays are one of our best anti-pruritics. In the treatment of the pruritis of the anal and vulvar regions, in the pruritis of the dermatoses, and in the pruritis of thrombophlebitis, very small doses of radiation exert a marked analgesic effect with complete disappearance of the itching in most cases. MacKee[1] considers radiation one of the best anti-pruritics.

A hemangioma is a vascular hyperplasia in the subcutaneous and cutaneous tissues. It usually appears shortly after birth. It is generally accepted that therapy should be conservative, but that whatever treatment is used should be started as soon as possible. Any sclerosing medium can be used in the treatment of these lesions, but care should be exercised to avoid leaving a scar more disfiguring than the hemangioma, most of which regress to a great extent or completely by the time the child is five years of age. I am indebted to Dr. T. Leucutia of Detroit for this method of therapy which has proved to be very successful. In addition to a small dose of radiation, x-ray or radium, the parents are instructed to massage vigorously the hemangioma two or three times daily with lanolin or any other ointment as a lubricant. I have seen huge hemangiomas involving the distal part of the forearm, wrist, and hand show marked regression after a couple of months of hard massage and be reduced sufficiently so that small doses of radiation could be given to complete the disappearance with less risk of damaging the underlying developing bones.

Bacterial infections respond spectacularly to irradiation. Chemotherapy has assumed the chief role in the treatment of furuncles and carbuncles. But in a patient sensitive to these drugs, x-ray can be employed with equal benefit. If a furuncle is treated very early, it usually can be aborted. After necrosis once begins, radiation hastens the resolution much as do hot packs. The mode of operation is apparently due to the endotoxin liberated from the leukocytes destroyed by x-ray in the area of the

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1. MacKee, G. M., and Cipollaro, A. C.: *X-Rays and Radium in the Treatment of Diseases of the Skin*, Philadelphia, Lea & Febiger, p. 438 (1946).

furuncle. There is of course no contraindication to the combined use of radiation and chemotherapy.

Another infection of the skin that is actually a menace is ringworm of the scalp. We all have frequently seen it spread through every child in a family. Such children are a constant source of contamination. Since schools in many cities will not allow them to attend, the affected children frequently lose much of their education. With x-ray, a cure can be obtained with one treatment, and the child can return to school within a month or so. About two weeks after treatment, the hair has completely fallen out. After about six weeks it begins to regrow. Frequently the new hair is somewhat darker, slightly heavier, and often wavy.

Dermatomycosis elsewhere may respond to radiation when other measures fail. And the allergic type frequently seen on the hands when a patient has infection of the feet will improve with x-ray treatments, but the exciting cause must be eliminated to effect a permanent cure. The feet must be actively treated and the shoes and stockings sterilized.

With acne vulgaris, when other treatments have failed, x-ray sometimes has produced marked improvement. We know that x-rays have no bactericidal effect in pustular dermatoses nor is their action due to a suppression of sebaceous gland activity. Niles [2] and Polano [3] demonstrated that radiation over one side of the face caused the untreated side to clear also. But whatever the mode of action, we do know that x-ray is the most successful treatment for the control of acne vulgaris. To avoid failures and serious results, there must be a proper selection of cases, inherent causative factors must be removed, and excessive doses (which might harm the skin) must be avoided. Reported statistics show that about 50 per cent of cases are cured with one course of treatment and about 25 per cent are improved. MacKee and Ball [4] concluded that:

"X-ray treatment from the standpoint both of statistics and clinical experience, offers the most certain method of obtaining a clinical cure and even a permanent cure, in the shortest time, especially when combined with adequate medical attention."

SKELETAL SYSTEM

When we come to the skeletal system, radiation of non-tumorous conditions is confined to the joints. In hypertrophic arthritis, sacroiliitis, and senile osteoporosis the most that can be expected from irradiation is a temporary amelioration of the pain. But many patients are grateful for even that.

In ankylosing (Marie-Strümpell) spondylitis early diagnosis with prompt x-ray treatment can most frequently arrest the disease. It is important that this affliction be considered in every case of chronic back complaint. Boland and Present [5] find that 18 per cent of the patients admitted to an army hospital with chronic back pain have ankylosing spondylitis.

Over a thousand cases of ankylosing spondylitis were treated at the Army Rheumatism Center in Hot Springs, Arkansas, where it was found that x-ray therapy was of definite value. Pain, tenderness, and stiffness were immediately reduced, and the limitation of motion and restriction of rib motion decreased.[6] The benefit accruing from x-ray therapy does not seem to depend so much upon the severity of the disease as upon the amount of structural damage which has resulted. Best results may be expected if therapy is started while active granulation exists and before ankylosis develops. Thus it is that early recognition of the disease improves the response to radiation therapy.

Patients with tempo-mandibular arthritis following malocclusion or a long siege at the dentist will be grateful for the relief of pain obtained following x-ray therapy. I recall one man with his jaw virtually frozen closed, unable to eat or talk. Improvement was noticed after the first treatment, and before a week was over, he was practically cured.

In treating the inflammatory lesions about the shoulder joint, x-ray holds an enviable position. Such lesions include subdeltoid bursitis, subacromial bursitis, peritendinitis calcarea, and scapulohumeral periarthritis. It is in the acute form that results are most spec-

2. Niles, H. D.: Archives of Dermatology and Syphilology, 27:89 (January 1933).
3. Polano, M. K.: Dermat. Wchnschr., 97:1070 (1933).
4. MacKee, G. M., and Ball, F. L.: *Radiology*, 23:261 (1934).
5. Boland, E. W., and Present, A. J.: Journal of the American Medical Association, 129:834 (1945).
6. Davis, K. S.: *Editorial:* Rheumatoid Spondylitis, *Radiology*, 50:246 (1948).

tacular. A few hours after the first x-ray treatment, the pain often becomes much worse but is soon followed by an analgesia that allows the patient complete rest. The response is not so rapid and not always so favorable in subacute and chronic cases. But acute exacerbations in chronic cases should have the benefit of radiation. The presence or absence of calcium in the soft tissues does not seem to have any bearing on the pain, nor does the disappearance of the calcium or its failure to disappear bear any relation to the relief obtained.

NEUROLOGIC DISORDERS

In the nervous system, the realm of radiation therapy (exclusive of tumors) is its analgesic effects. The response, however, is inconstant. Pain resulting from infection or inflammation is frequently alleviated by x-ray, but the essential neuralgias of undetermined origin are not so amenable.

Paravertebral radiation in the acute stage of herpes zoster frequently results in prompt disappearance of pain and subsidence of the eruption. Keichline [7] reported a cure of 90 per cent of the cases with a single treatment. Reeves and Waters [8] found in herpes that 67 per cent were cured, 18 per cent improved, and 14 per cent were regarded as failures. They noted that if the pain increased immediately following the first treatment, cure or improvement was more likely. When the symptoms had been present for a month or so before radiation was started, failure or only slight improvement resulted. Post-herpetic pain may temporarily respond to irradiation, but the results are not usually very prolonged.

LYMPHOID TISSUES

The lymphoid tissue of the body is most responsive to radiation. Diseases of this tissue respond very readily to x-ray therapy. By this time all physicians know of results obtained from irradiation of the adenoids with the Crowe applicator filled with radon or radium. In the series reported by Proctor,[9] 25 per cent showed complete disappearance of the nasopharyngeal lymphoid tissue and 40 per cent had only minute traces remaining after treatment. Of 127 patients with a large mass of adenoidal tissue on the first examination, only seven still had a mass after treatment. And of 147 patients with lymphoid tissue completely covering the eustachian orifices, only 11 had the condition on the last examination. Of 33 ears with chronic discharge, 12 healed completely, 9 became dry but the perforation persisted, and 12 continued to discharge. Although radium is becoming widely used in this field, equally good results can be obtained with x-ray which has been used for many years and has the advantage of covering larger areas of lymphoid tissue.

Many afflictions of the upper respiratory tract such as colds, sinusitis, ear infection, and deafness follow hypertrophied or chronically infected nasopharyngeal lymphoid tissue. Ward, Livingston, and Moffat [10] reported on their use of irradiation to the nasopharyngeal lymphoid tissue to relieve childhood asthma. Hypertrophied lymphoid tissue must have been present before the child was taken on for therapy. Tonsils and adenoids had been previously removed in 47 per cent of the group. In 44 per cent of the cases complete relief of the asthmatic symptoms was obtained. Fifteen per cent obtained marked relief and had only occasional mild attacks; in 9 per cent attacks were reduced in frequency and severity about one-half; 32 per cent showed no improvement.

Chronic infections of the lymphoid tissue such as tuberculous nodes frequently show marked improvement following repeated small doses of x-ray. Early diagnosis and early therapy is essential to the best results. Kelly [11] treated cervical tuberculous lymphadenitis with x-ray and followed them for over seven years. In his 21 cases of hypertrophy of lymph nodes without periadenitis, the lesions disappeared in all 21 cases following one course of therapy, a second was not necessary. In 44 cases with more advanced lesions where there was considerable fibrosis and larger masses of nodes that were firm and matted together, about one half showed satisfactory improvement, and the re-

7. Keichline, J. M.: *Radiology*, 22:372 (1934).
8. Reeves, R. J., and Waters, L. B.: Texas State Journal of Medicine, 42:490 (Dec. 1946).
9. Proctor, D. F.: Archives of Otolaryngology, 45:40 (January 1947).
10. Ward, A. T., Jr., Livingston, S., and Moffat, D. A.: Journal of the American Medical Association, 133:1060 (April 12, 1947).
11. Kelly, C. H.: Mississippi Valley Medical Journal, 70:228 (Feb. 1948).

maining half showed some decrease in size of the masses. In a third group, showing suppuration, fistulous tract formation and skin involvement, there was a decrease in size of the masses and in some cases there was a spontaneous closure of the fistulous tract.

VASCULAR SYSTEM

In regard to the vascular system, I have seen immense relief from itching secondary to a thrombophlebitis with small doses of x-ray. The response of the underlying thrombophlebitis is variable, but at least the itching can almost universally be stopped.

RESPIRATORY SYSTEM

As far as the respiratory system is concerned, there are three major conditions for which radiation can be used. In virus pneumonia, penicillin and the sulfa drugs have not proved themselves. But frequently the feeling of lassitude that accompanies the disease responds to irradiation, though films of the chest do not show any increased resolution of the lung pathology. Uhlman found that half of his virus pneumonia cases showed improvement following x-ray therapy to the chest.

Asthmatics are frequently benefitted by small doses of radiation. Radiation depresses the bronchial secretions and acts on the enlarged hilar nodes. Radiation should be limited to true essential bronchial asthma with spasmodic vasomotor and vasosecretory characteristics. Asthma secondary to organic pulmonary lesions should not be irradiated. McEachern [12] reported on bronchial asthma treated with x-ray. In his series 84 per cent showed improvement, with complete arrest in 25 per cent. Kaplan [13] found that 73 per cent of his asthmatics obtained relief from paroxysms.

The sinuses are the third field where radiation often can prove its value. Young children are prone to sinusitis and in such cases Laing [14] used x-ray therapy. He reported on 900 cases so treated and of that number 71 per cent were cured with a single course of treatment, 15 per cent were moderately improved, and 14 per cent showed no improvement after the first course of therapy; but over half of the latter group did obtain a cure with the second course.

Frequently in adults with chronic sinusitis, beneficial results can be obtained with the judicious use of x-ray.

MASTITIS

There is an affliction of the female breast that is much more responsive to radiation than breast malignancy with which radiation is usually associated. That condition is mastitis, both the acute post-partum and the chronic varieties.

Doudy [15] treated 137 breasts involved with a post-partum mastitis with only two abscesses resulting compared with the usual occurrence of abscesses in 20 per cent when other methods of treatment are used. And the two abscesses in his series occurred in cases which had been treated with other methods first and not by x-ray till four to seven days later. I have seen many cases of engorged, red, angry breasts subside quickly and without abscess formation following a few doses of x-ray.

Chronic mastitis usually shows a premenstrual flare-up of pain and tenderness with local or diffuse nodules in the breast. Beginning as an inflammation or functional hypertrophy, it often ends as a malignancy. Pfahler and Keefer [16] have treated 151 cases in the past 25 years of which 74 per cent made a complete recovery, 24 per cent showed improvement, and fewer than 3 per cent remained unchanged. Thus radiation becomes a potent weapon for the prevention of carcinoma from a degeneration of a chronic mastitis.

GASTRO-INTESTINAL LESIONS

Of the lesions involving the gastro-intestinal tract, parotitis is one of the outstanding in its response to radiation therapy. Before the days of chemotherapy, when parotitis was more frequently seen in post-operative cases, irradiation was considered an emergency treatment. The combined use of chemotherapy and x-ray today assures the speediest cure.

GENITO-URINARY DISORDERS

The last condition for discussion involves the genito-urinary tract — Peyronie's disease or

12. McEachern, J. M.: Canada Medical Association Journal, 37:573 (December 1937).
13. Kaplan, I. I., and Rubenfeld, S.: American Journal of Roentgenology, 50:791 (December 1943).
14. Laing, D. R.: *Radiology*, 50:52 (Jan. 1948).
15. Harvey, R. A., Spindler, H. A., and Doudy, A. H.: Surgery, Gynecology and Obstetrics, 80:396 (April 1945).
16. Pfahler, G. E., and Keefer, G. P.: Pennsylvania Medical Journal, 50:1347 (Sept. 1947).

plastic induration of the penis. Kindler [17] reported eight cases treated with x-ray resulting in a cure in four during a two year follow-up. Giles [18] reported three cases, the first of which was treated with radiation seven months after discovery of the induration; he responded well. The second case was treated the same way six years after the onset of the disease and obtained only slight improvement. The third case (of three years' duration) was treated surgically and followed with post-operative radiation, but the results were poor. Fuhs [19] reported that of 63 patients who completed radiation therapy, 43 per cent were cured, 43 per cent improved, and 14 per cent remained unchanged.

Greater use of radiation in the treatment of the more common ills seen by the practicing physician will improve the rate and speed of recovery, and cooperation and consultation with the radiologist will insure the best use of this form of therapy.

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PNEOPHORE

The Council on Physical Medicine of the American Medical Association has accepted a new device for administering oxygen with intermittent positive pressure. With this, treatment of respiratory ailments in which the lungs (or parts of the lungs) are inactive, now is possible. The appliance was developed during the war to save aircraft crew members suffering from anoxia during high altitude flights. This device is called "Pneophore". It is a valve arrangement that administers oxygen with intermittent positive pressure. With it, nebulized drugs can be carried effectively into a large part of the respiratory system to treat various pulmonary ailments.

In the past, treatment of pulmonary disorders by the aerosol method has been hampered because only the part of the lung used effectively on inhalation could be reached. With Pneophore, however, it is possible to introduce penicillin, streptomycin and other drugs into a large region of the lung area, whether active or inactive. Pneophore differs from a resuscitator in that it administers oxygen under intermittent positive pressure only, eliminating the possibility of damaging lung tissue by suction if pulmonary edema or atelectasis are present. Oxygen delivery pressure is adjusted by a regulator. On conscious patients, Pneophore will follow without effort the natural breathing pattern of the individual. If breathing has stopped, the valve will cycle 12 to 25 times per minute, varying with the pressure setting used, and permit exhalation by recoil.

Besides its use in emergency cases of drowning or other types of asphyxia, Pneophore is helpful in poliomyelitis with respiratory arrest. Several hospitals now use the apparatus to sustain breathing of polio patients when they are removed from an "iron lung" for physiotherapy and other purposes.

It is useful in pulmonary edema resulting from exposure to irritant gases, superheated air and other causes. It rhythmically exposes the alveoli to intermittent positive pressure. retarding serous exudation and dispersing fluids more rapidly.

The apparatus has six main components. There is a high pressure reducing valve to reduce the pressure of oxygen leaving the cylinder to 50 pounds per square inch and a gauge to indicate oxygen cylinder pressure. A low pressure regulator reduces the force to an adjustable range from 0 to 30 centimeters of water. A gauge calibrated in centimeters of water also is provided. The rubber tubing leading to the differential pressure valve is six feet long. The latter valve converts a continuous positive pressure into intermittent positive pressure, thus acting as a respirator. Two different size positive pressure facepieces each with a four-inch attached length of tubing, complete the assembly.

Among the hospitals where Pneophores are now being used are Johns Hopkins, Bellevue, Barton Memorial, Jefferson Hospital, Mayo Clinic, Cleveland Clinic, University of Wisconsin, New York Mt. Sinai, Rochester University, Montreat Neurological Institute, and Hartford Hospital.

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17. Kindler, E.: *Strahlentherapie*, 76:433 (1947).
18. Giles, R. G.: Urologic and Cutaneous Reviews, 51:399 (July 1947).
19. Fuhs, H., Quoted by Soiland, A.:*Radiology*, 42:183 (1944).

SOLITARY EOSINOPHILIC GRANULOMA OF BONE*

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In the eight years which have elapsed since Jaffe [1] first designated a granulomatous bone lesion as eosinophilic granuloma, approximately sixty cases have been reported.[2] The lesion has been most frequently seen in young children and adolescents. Occasional cases have been described in the third and fourth decades. The oldest known patient with eosinophilic granuloma was a woman 69 years of age.

An eosinophilic granuloma is a benign destructive bone lesion which may involve one or more bones. The ribs, skull and pelvis are frequent sites, but the lesion has also been demonstrated in the long bones. As yet, it has not been described in the bones distal to the ankle or wrist joints.

SIGNS AND SYMPTOMS

Pain, the most constant symptom, is localized to the site of the lesion. The pain is usually mild at the time of onset and may be aggravated by activity. In the later stage the pain may be constant and may not be relieved by rest in bed. Tenderness is sharply localized to the site of the lesion. Local swelling with some limitation of function may be present.

X-RAYS

Because there is no distinctive roentgenographic appearance of eosinophilic granuloma, the lesion may be mistaken for any one of a wide variety of osteolytic benign or malignant neoplasms. Inflammatory conditions either acute or chronic must of necessity be considered in the differential diagnosis. The lesion originates in the interior of the bone and as it enlarges the endosteal cortex becomes progressively eroded, expanded, and finally perforation of the cortex is accomplished. In a rib the lesion is usually visualized as a small or large oval expanded area of rarefaction with thinning of the cortex. In the area of fracture periosteal new bone is deposited.

LABORATORY FINDINGS

As a rule the blood count is within normal limits. Occasionally a moderate leucocytosis may be reported, but without change in the differential count. In some instances, regardless of the degree of leucocytosis, the blood smear shows a slight eosinophilia. Jaffe [1] found that blood estimations of cholesterol, cholesterol esters and total lipids were within normal limits. The tissue from lesions cultured for bacteria were negative.

The histologic appearance of eosinophilic granuloma is essentially granulation tissue with foci of necrosis and haemorrhage. The non-necrotic portions present large histiocytes with varying numbers of eosinophils. In the haemorrhagic and necrotic foci multinucleated giant cells are usually seen.

TREATMENT AND OUTLOOK

Although an eosinophilic granuloma may be suspected following the clinical and roentgenographic examinations,[3] a definite diagnosis can be established only by microscopic examination of the biopsy material. Operative excision of the lesion is the treatment of choice. Local recurrence of the excised eosinophilic granuloma has not been reported, although new lesions may appear in other bones. Roentgen therapy has been successfully employed, but because of the difficulty in establishing a positive diagnosis this method has not been generally recommended.

The prognosis of solitary eosinophilic granuloma of bone is good. In cases which present multiple bone lesions, the possibility of associated visceral lesions (Letterer-Siwe disease and Hand-Schüller-Christian disease) being

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1. Jaffe, H. L. and Lechtenstein, L.: Eosinophilic Granuloma of Bone. Am. J. Pathol., 16:595, (1940).
2. Jaffe, H. L. and Lechtenstein, L.: Eosinophilic Granuloma of Bone. Arch. Pathol., 37:99, (1944); and Farber, S.: The Nature of "Solitary or Eosinophilic Granuloma" of Bone. Am. J. Pathol., 17:625, (1941); and Green, W. T., and Farber, S.: "Eosinophilic or Solitary Granuloma of Bone". J. Bone and Joint Surg., 24:499, (July 1942); and Thurm, A. S.: Eosinophilic Granuloma of Bone. Report of a Case with Multiple Bone Lesions. Bull. Hosp. for Joint Diseases, 3:9, (1942).
3. Riley, P.: Eosinophilic Granuloma of Bone: Report of a Case with Preoperative Roentgen Diagnosis. Radiology 47:514, (1946).



Fig. 1. Roentgenogram showing lesion in right tenth rib.



Fig. 2. Specimen, showing thickened periosteum and erosion of inferior cortex of rib.

present should be kept in mind and therefore the prognosis must be guarded.

CASE REPORT

At the request of Dr. Louis Cohen a white female, aged 34, was first examined on December 11, 1946, complaining of pain in the right posterior chest. The pain, mild at onset began six weeks prior to the examination, and followed immediately after an injury when she struck her right posterior chest against a banister. She had been treated with strapping and medication without relief. The pain gradually increased in severity and was not relieved by bed rest. The examination was entirely negative except for constant localized tenderness over the right tenth rib in the inferior scapular line. Roentgenographic examination revealed an osteolytic expanded lesion on the inferior portion of the right tenth rib with erosion of the inferior cortex and some periosteal new bone formation. At operation on December 23, 1946, the lesion was localized by roentgenographic control and about two and a half inches of the rib was excised. The periosteum was thickened and adherent. There was some bulging of the midportion of the specimen. The destroyed bone was partly replaced by a soft reddish tissue streaked with yellow granules.

The patient was last seen in October 1948, and has been completely free from symptoms.

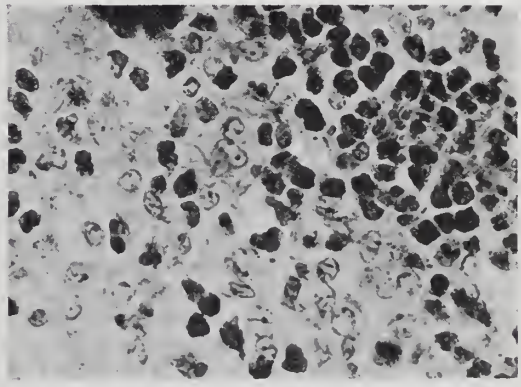


Fig. 3. Microscopic section, x450, showing large histiocytes and eosinophils.

FIFTY YEARS AGO

"The question proposed for next year's discussion is: 'To what extent does the Charitable Clinic curtail the revenue of Medical Practitioners?'" (From the 1899 report of the Committee on Business, The Medical Society of New Jersey.)

FIFTY YEARS AGO

"This remark of Dr. W. W. Keen, following recovery of a patient from whom he had removed a large portion of the brain, has impressed me: 'It begins to look as though no one of the organs of the human body is essential to life'." (From 1899 *Transactions of The Medical Society of New Jersey*, page 107.)

CLOSTRIDIUM HISTOLYTICUM INFECTION

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Clostridium hystolyticum was first described by Weinberg and Sequin [1] in 1916 when they isolated it from gangrenous wounds. Since that time there have been few case reports and only two series of cases from which one might draw conclusions as to its pathogenicity. MacLennan [2] in 1943, in discussing 146 cases of gas gangrene, listed ten cases in which the clostridium was present, all of which were fatal. In one case this organism was the sole infector. Hall [3] in 1945 presented seventeen cases of infected wounds in which clostridium histolyticum was isolated. These were found in a study of 2500 accidental wounds. All seventeen cases were mixed infections and none was fatal. Two occurred in burns. Weinberg and Sequin [1] recovered it in eight of thirty gangrenous wounds, four of which were fatal. Weinberg and others [4] isolated the organism in two gangrenous appendices.

A single case reported by Legros [5] was a mixed infection of the right scapular region, terminating fatally. An additional single case was reported by Sachs and Flannery [6] in 1941. The organism was cultured from the right shoulder, left elbow and blood. The patient recovered after eight months. The bacteriology of that case is discussed by the authors in some detail.

Hall [3] states that the organism is widespread and "probably occurs not uncommonly in the intestinal tracts of man from which it readily finds its way into the soil." The organism can be grown both aerobically and anaerobically, but the growth is extremely delicate and easily overlooked. This is possibly the primary reason for its being so seldom reported in cultures. It is a gram-positive, generally straight rod which readily forms spores in all media. The spores are oval, subterminal, wider than the bacillus, and may become free in old cultures.

The lesions produced by this organism in experimental animals have been described in detail by Weinberg [4] and also by Combiesco.[7] Intramuscular injection of a young broth culture causes digestion of the skin, subcutaneous tissues and muscle. There develops a marked edema and liquifaction of these tissues. This histolysis is not putrid and is not accompanied by the production of gas. There may be large hemorrhages, apparently caused by destruction of the vascular walls. The organism can invade the blood stream, as was demonstrated by Sachs and Flannery.[6] Strains of the organism vary markedly in degree of virulence.

Pure infections are probably rare. We have found published reports of only two. The infection is usually mixed, either with other Clostridia, or the common cocci and bacilli, or both. The clinical picture varies from case to case depending upon the diversity of the associated bacterial flora. While chances for recovery from a clostridium infection due to a single species are reasonably good, they diminish rapidly when other anaerobes are present. This clostridium in both living and dead tissues, has by far the most powerful proteolytic action of any of the clostridia, and it may be that it acts quite as much by aiding the nutrition and direct spread of other organisms as by the action of its own exotoxin.[2]

The following case is presented as an ex-

* Department of Surgery, McGuire Veterans Administration Hospital, Richmond, Virginia. This paper was read before the Richmond, Virginia, Academy of Medicine, May 11, 1948. It is published with permission of the Chief Medical Director, Department of Medicine and Surgery, Veterans Administration, who assumes no responsibility for the opinions expressed or conclusions drawn by the authors.

1. Weinberg, M., and Sequin, P.: Contribution a l'Etiologie de la Gangrene Gazeuse, Compt. Rend. Acad. d Sci., 163:449 (1916).
2. MacLennan, J. D.: Lancet, 2:63 (July 17, 1943);2:94 (July 24, 1943); 2:123 (July 31, 1943).
3. Hall, I. C.: *Surgery*, 18:369 (Sept. 1945).
4. Weinberg, M., Renard C., and Davesne, J.: Presence des Anaerobies de la Gangrene Gazeuse dans la Flore Microbienne, de l'Appendicite, Compt. Rend. Soc. de Biol., 94:813 (April 9, 1926).
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6. Sachs, A. E., and Flannery, V. L.: Medical Bulletin of the Veterans Administration, 17:300 (Jan. 1941).
7. Combiesco: Lesions Histologiques Produites ches le Cobaye par le B. Histolytique, Annals de l'Institute Pasteur, 39:855 (Nov. 1925).

ample of the behavior of clostridium histolyticum in a mixed infection, in the absence of other clostridia, which closely parallels its action in experimental animals.

CASE HISTORY

The patient, a 59 year old male, was admitted to the hospital ten days following an injury to his right hand sustained while shelling oysters. The injury consisted of superficial lacerations of the dorsal surfaces of the distal phalanges of the right fourth and fifth fingers and a small puncture wound of the lateral aspect of the fifth finger. After a very short time, a slightly hot swelling began in the right third, fourth and fifth fingers, and several blisters appeared in the skin of these fingers. He consulted his local physician four days following his injury. A sulfonamide ointment was applied and intermittent hot saline soaks instituted. The lesions were painless except for slight initial pain. Despite treatment, progressive swelling ensued which soon involved the entire hand. On the day following his first treatment the blisters began to increase in size, and in four days covered both surfaces of almost the entire hand. Some of these blisters were incised by his local physician.

Past history and family history revealed nothing of significance. The patient was a well developed, thin, colored male who did not appear acutely ill. Temperature was 98.8, pulse 86, respiration 20, and blood pressure 114/60. Physical examination was not significant except for the right upper extremity.

There was marked edema of the entire right hand which was about three to four times the size of the opposite hand. The skin was gray-white, and raised into many large and small bullae, some of which were open and from which escaped tremendous quantities of straw-colored serous fluid. Moderate edema without other skin changes was present about the wrist and over the ventral surface of the distal one-third of the forearm. Lateral to the fifth finger nail, there was a small, circular wound from which drained small amounts of gray colored pus. The affected parts were painless and demonstrated an almost complete loss of pain, temperature, protopathic and epicritic sensations. Motion was limited in all joints except those of the fifth finger, wherein no active motion was possible. There was a mild, inoffensive odor associated with the lesion. There was no crepitation. The right epitrochlear and axillary lymph nodes were moderately enlarged, discrete, soft, and non-tender. X-ray revealed a triangular foreign body mesial to the distal phalanx of the right fifth finger, but no emphysema of the finger or hand was noted.

Laboratory work revealed 15,400 leucocytes with 84 per cent polymorphonuclear cells, 16 per cent lymphocytes, and 11 grams of hemoglobin. Subsequent studies of drainage and debrided tissue revealed "a gram-positive anaerobic bacillus with cultural characteristics and morphology resembling clostridium histolyticum". Injection of the organism into a guinea-pig produced the typical picture of a full virulent clostridium infection. Staphylococcus aureus, bacillus proteus and pseudomonas were also present.

Treatment instituted on admission consisted of massive doses of penicillin (200,000 units every three hours) sulfadiazine (a gram every four hours) with equal amounts of sodium bicarbonate, and continuous warm sterile saline soaks. The patient was given prophylactic gas gangrene and tetanus antitoxin. Opinions as to the indicated therapy varied from "watchful waiting" to amputation of the hand. However, in view of the absence of gas formation, the patient's generally good condition, and absence of toxemia, conservative treatment was continued. The patient was given combined antitoxin twice per day for three days because of the possibility of gas or tetanus infection. Debridement of necrotic tissue was done soon after admission and daily as necessary thereafter.

After one week, the continuous soaks were changed to intermittent soaks and active exercise of the hand encouraged. Between soaks, the hand was bandaged dry. Penicillin and sulfadiazine were discontinued on the fifteenth day. During this time there was a gradual decrease in the drainage and edema. There developed gangrene, with definite demarcation, of the terminal portions of the middle and ring fingers and of the major portion of the fifth finger with sequestration of the terminal phalanx and a portion of the middle phalanx of this finger.

Sixteen days after admission, amputation of sequestrated bone and plastic repair of the fifth finger was done. Soaks were then discontinued. Twenty-six days after admission the areas of slough on the hand and fingers were found to be well granulated. Amputation of the gangrenous terminal phalanges of the middle and ring fingers was done and split thickness grafts were applied to all granulating areas. Penicillin (100,000 units every three hours) was given for five days after the second operation. Both procedures were done under pentothal supplemented with nitrous oxide and oxygen. Amputation stumps healed well and all grafts took well with the exception of a portion of the graft applied to the ring finger. This was allowed to heal by granulation. Coincident with the decrease in edema, the marked hypesthesia of the affected parts began to clear. Improvement was progressive and there was almost complete return of sensory function at the time of discharge. Patient's temperature rose to 100.8 in the afternoon of each of the first three days of his hospitalization, but thereafter remained normal. Blood count and hemoglobin gradually returned to within normal limits.

During the latter part of his hospital stay there developed a mild but definite stiffness of much of the right hand. He was given physiotherapy during the last two weeks of his stay and the newly epithelized areas and grafts were kept pliable and soft by the use of lanolin. He was instructed to continue physiotherapy upon his return home. He was discharged sixty-five days after admission.

The patient returned for follow-up after one month, at which time there was marked improvement in the general appearance and function of the

hand. Additional follow-up after one year again revealed quite satisfactory function. The patient is now employed in general farm work. There still remains a very slight hypesthesia, and he wears a glove on the affected hand for protection. He is not limited to any significant extent in the use of his hand.

COMMENT

Clostridium histolyticum would more often be reported if a careful search were made for it. The organism is probably present in the bacterial flora of many wounds and infections in which it plays but a minor part, and is significant only in its presence. However, as in this case, an infection by a clostridium of a sufficiently virulent strain may be of severe nature. It is probable that this organism by its lytic activity can alter the severity and course of other infections, including those due to other clostridia. Of interest in this case is that despite the virulence of the organism and the severity of its local effect, the systemic manifestations were minor. At no time did the patient appear gravely ill.

In the case presented, conservative therapy, allowing demarcation of gangrenous tissue, followed by plastic repair, yielded satisfactory results. Immediate amputation and other radical measures, so often necessary in the treatment of gas gangrene, can probably be deferred in many instances where gas forming clostridia are absent, thus permitting preservation of tissue. In this case, preservation of a functioning hand was possible. This would seem to corroborate the observations of North,[8] that in localized infections due to clostridia (where actual gas is not detected and where there is adequate circulation in the involved extremity as a whole) local debridement as necessary until slough has separated is the treatment of choice. His experience included thirty-six such cases. All recovered without loss of the involved limb. One additional patient, with an extensive involvement of the abdominal wall, died. The bacteriology of these cases was not discussed in detail. It would be interesting to know whether clostridium histolyticum played any significant part.

It is impossible, of course, to evaluate the effect of penicillin and sulfonamides in this single case. Whether these drugs had any specific effect, or whether they were effective only in limiting the scope of the other organisms, if at all, is not known. Unfortunately, in vitro sensitivity tests were not done. North[8] feels that sulfonamides and penicillin are useful but probably not specific in clostridial infections. The mixed antitoxin given empirically in this case prior to return of the culture reports probably was of no value.

SUMMARY AND CONCLUSIONS

1. A brief review of the literature and a case report is presented of a mixed infection of the hand in which clostridium histolyticum was the only clostridium isolated. The lesions were markedly similar in all respects to the classic reaction of the organism in experimental animals, and the strain was fully virulent.

2. A brief description of the organism and its mode of action is presented.

3. Sufficient data are not available to evaluate the role of sulfonamides and penicillin in this type of infection, but their use is probably indicated.

4. A diligent search for this organism by both aerobic and anaerobic culture methods and by the injection of experimental animals is suggested in any infection showing marked lysis of tissue.

5. Early, careful debridement of necrotic and gangrenous tissue is indicated, but more radical measures probably can be deferred until after demarcation has taken place. In such cases, better functional results may be possible.

6. In clostridium histolyticum infections in a mixed flora, and in the absence of other clostridia, the prognosis is good.

8. North, J. P.: *Surgery*, 21:364 (March 1947).

Veterans Hospital
Richmond, Virginia

PREGNANCY COMPLICATED BY LYMPHOGRANULOMA VENEREUM WITH COLOSTOMY*

Joseph M. Smolev, M.D., Passaic, N. J., and
Abraham B. Tamis, M.D., Bronx, New York

Lymphogranuloma venereum is a rare complication of pregnancy. Because of the way it affects the birth canal and adjacent bowel, considerable thought must be given to the method of delivery consistent with the safety of the mother. The case to be reported brings out some of the problems involved.

Lymphogranuloma venereum, also known as inflammatory rectal stricture, esthiomene, climatic bubo, and lymphopathia venereum, is a venereal disease caused by a filterable virus, and characterized (in its initial phase) by a lesion usually appearing in the form of a shallow ulcer on the vulva, rectum, penis, or vagina. The lesion is so inconspicuous that it often escapes clinical detection. It is frequently associated with syphilis and gonorrhea, and for this reason also, its presence may be obscured by these more obvious venereal infections. During the early phase of the disorder, systemic manifestations may be evident.

The disease, which thus begins as a small lesion of the genitals, is followed by inguinal adenitis. Invasion of the lymphatic structures usually takes from ten to thirty days, but may be delayed for months, and, according to some investigators, years. The adenitis associated with the acute phase of this infection may be one-sided or bilateral; occasionally it subsides spontaneously. The further progress of the condition may be characterized by extensive ulceration combined with productive inflammation. This, in turn may result in the formation of large tumor-like masses that produce elephantiasis of the vulva. In other instances, progress of the disease may result in large indolent ulcers, which may destroy vulvar structures, and extend into the perineum and rectum. To such ulcerative lesions of lymphopathia, the term *esthiomene* is applied.

The rectum is frequently involved as a result of retrograde lymphatic extension and lymphangitis. In later stages, marked fibrotic changes give rise to extensive rectal strictures. The early involvement in this "ano-rectal syndrome" is characterized by rectal pain and discharge of blood and pus from the anus. This syndrome of extensive scar formation in the pelvis, when associated with pregnancy, becomes of extreme importance to the obstetrician, and poses problems about the method of delivery.

At present, the literature reports 162 cases of labor in patients with lymphopathia venereum and rectal strictures. According to the recent report by Steer,[1] at the New York Presbyterian Hospital, for all services, 126 cases of lymphogranuloma venereum were diagnosed over a period of fifteen years.

On the obstetrical service at Presbyterian Hospital, (Sloane Hospital), during this same period, there were 22,500 deliveries, eight of which were associated with lymphopathia venereum.

At the Morrisania City Hospital, in 24,000 deliveries, there was only one case of lymphopathia in the obstetrical service. The case report follows:

A colored female, age thirty-one, gravida 1, para 0, registered in the pre-natal clinic of the Morrisania City Hospital on March 3, 1947. Last menstrual period was November 3, 1946.

She had had lymphogranuloma venereum infection in 1935, with resultant rectal stricture. Three years later, because of this rectal stricture, a permanent abdominal colostomy was performed, and this opening has been functioning since then.

During pregnancy, the pre-natal course was complicated by one episode of fever and abdominal pain, evident during the fifth month of gestation for which the patient was hospitalized. Examination of the abdomen revealed a double-barrelled colostomy-opening in the left lower quadrant. The uterus was palpated at the level of the umbilicus. In the right lower quadrant, along the uterine border, a firm, round mass five to six centimeters in diameter, was found tender to palpation. Several smaller nodules were felt on the fundus. A diagnosis of a degenerating fibroid tumor was made. The pain subsided after several days of conserva-

* From the Department of Obstetrics, Morrisania City Hospital, New York City, Milton J. Goodfriend, M.D., director.

1. Steer, Charles M.: American Journal of Obstetrics and Gynecology, 54:230 (February 1947).

tive treatment, and the patient was discharged on the tenth day.

Due to the presence of colostomy and rectal stricture, the question of method of delivery at term was discussed. She was admitted to the obstetrical service on August 1, 1947, which was ten days prior to the expected delivery date. By this time, the uterus was found to be enlarged to term. The vertex was presenting in the L.O.T. position, with the vertex totally unengaged. Fetal heart was heard best in the R.L.Q. at 132 per minute.

The area about the anus was densely scarred, obliterating the orifice to such an extent, that it was found impossible to introduce a finger tip.

Vaginal examination was difficult, due to considerable scarring and narrowing of the introitus. The scarring involved the posterior vaginal tube, extended upward, and could be felt behind the cervix, in the cul-de-sac. This latter area was hard, indurated, and unyielding.

X-ray pelvimetry revealed a gynecoid inlet, diameters ample, with the true conjugate eleven centimeters.

In considering method of delivery, we reviewed all the recent literature on this subject. Maternal mortality in the reported series was 6 per cent. Most common causes of death were rupture of the rectum or rupture of the uterus as a result of the extensive scarring and subsequent soft tissue dystocia. In the main, these instances of rupture were usually preceded by some type of operative manipulation, such as forceps delivery, version, extraction or breech delivery. Spontaneous delivery is not entirely free of risk, inasmuch as two of these 162 labors ended fatally; one of a ruptured rectum, and one of a ruptured uterus.

In view of all this, and in spite of an apparently adequate pelvis and functioning intestinal stoma, it was felt that the rectal stricture and extensive pelvic lymphopathia made prospects of vaginal delivery extremely hazardous. It was decided that cesarean section, in spite of the abdominal colostomy, offered the best prognosis for mother and child.

Obtaining a sterile field during the operation then became of paramount importance.

The patient was prepared pre-operatively by oral administration of sulphasuxidine, beginning five days before operation. The lower left half of the abdomen (containing the colostomy opening) was covered with oil silk, and the edges were sealed with adhesive tape. The right side of the abdomen was cleansed daily with soap and water, followed by an alcohol wash. The lateral aspect of the oil silk was elevated whenever it became necessary to evacuate the bowel. The area was then cleansed, and again covered with the oil silk.

On August 5, 1947, the patient suddenly went into mild labor. A low classical cesarean section was done, with delivery of an apparently normal female infant, weight, five pounds five ounces. Exploration of the peritoneal cavity (particularly in the region of the lower, anterior uterine segment and colostomy) failed to reveal induration or adhesions. No evidence of a fibroid mass was found in the lower right quadrant.

The patient was placed on routine post-operative care, which included administration of penicillin for three days. Post-operative course was entirely uneventful, and she was discharged on the ninth day.

SUMMARY

1. A case of full-term intra-uterine gestation with extensive pelvic lymphopathia and permanent colostomy is presented.

2. In the presence of rectal stricture and pelvic scarring, treatment by cesarean section was selected as procedure of choice.

585 Main Avenue
1882 Grand Concourse

CHURCH COUNCIL OPPOSES STATE MEDICINE

Readers will be interested in the following resolution adopted by the American Council of Christian Churches in Denver on April 29, 1949:

For the State to usurp responsibility for the medical care of its citizens, whatever its name and title, constitutes an infringement of human responsibility and individual freedom which God has not given to the State.

God created man for His own glory, gave him a body as a fit organ for his soul, and made man responsible to Him, not to the State, in his care of his body. The State has no right to destroy this relationship, and require by law, force, or other method the submission of the body to its paternal care.

The soul and the body are inseparably connected, parted only by death; and when the State *attempts* such care of the body, it inevitably moves to direct the mind and spirit.

The depravity of man, as taught in the Bible, so aggravates State control as it relates to government officials, politicians, physicians, and patients as to produce a corrupt, inefficient, expensive, bureaucratic and intolerable system.

Socialized medicine in any form, represents, we believe, a clear violation of the Fourth Amendment of our Constitution which guarantees "The right of the people to be secure in their persons".

The battle against State medicine is not for the doctors alone, but it belongs to all Christian people who cherish their own freedom as well as the physician.

STATE ACTIVITIES

CONVENTION KALEIDOSCOPE

More than a thousand doctors, together with 800 visitors, auxiliary members and exhibitors thronged the Ambassador Hotel during the last week of April to make the 183rd Annual Meeting one of the record conventions in our history. For most of us it was a triple-play event, the three prongs being scientific education, business meetings and personal recreation. Any one who came with a yearning for learning had a chance to get a head full of it, since this season, for the first time in its 183 years, The Medical Society of New Jersey offered eighteen specialized scientific sessions. A half a hundred scientific papers were read and discussed. Nine different medical films were projected on a screen set up on the lounge floor, offering an almost continuous performance from Monday morning to Thursday noon. Those in attendance had a chance to gasp and gape at 32 scientific exhibits. As usual the technical and commercial exhibits were powerful magnets.

The sessions of the House of Delegates were well attended, a boon which was due, in part at least, to the fact that the last session was held on Wednesday instead of (as in previous years) on Thursday. A record crowd turned out to hear Mr. Smith discuss medical public relations and Mr. Richardson draw a bead on Britain's national health program. The election of officers brought no surprises, and the award to the state's outstanding general practitioner brought lots of well-earned applause.

There was the usual Mennen's party and the traditionally hospitable Hudson County Society room. The nostalgic echoes of "how are you—haven't seen you since the last convention" rumbled through the lobby and across the boardwalk, as old friends and fellow-classmates met, pounded shoulders and exchanged greetings. The Reference Committees all went into high gear on Tuesday evening and their smoke-filled rooms were well attended as members came in to ask for, and get, their democratic right to be heard. The social high-spot of the week was the dinner dance—an evening of pleasant eating and dancing unalloyed by any solemn speeches from visiting big-wigs. Instead it was a family party. A group of Dr. Hornberger's Burlington County fellow-workers and fellow club-members joined in paying him honor and all of us got a glow at seeing him thus accoladed before both his profession and his public. He had administered a difficult year with smoothness and dispatch and deserved the honors heaped upon him on this occasion.

Eight scientific exhibits were tapped for awards. In the "individual investigation" category, Dr. Henry A. Brodkin took the blue ribbon for his display of congenital chest deformities, while the runners-up were a St. Michael's Hospital group (Doctors Murray, Rudomanski and Crosby) who offered an exhibit of venous pressure studies in childhood; a display of mycobacterial forms in tumor cells by Doctors Wuerthele-Caspe, Roy Allen, James Hillier and Paul Little; and a set of panels on the control of cancer in childhood by Dr. Harold Dargeon. In the "meritorious excellence" bracket, the first award went to a Jersey City Medical Center team for a display on pulmonary edema prepared by Doctors White, Jaffin, Leevy, Gnassi and Price. The number two spot was given to Dr. William Leff and Dr. Nathan Furst of Newark's Beth Israel Hospital for an exhibit on angiocardiography. The Presbyterian Hospital in Newark was represented by the Doctors Sprague-Schaaf-Goldberg trio who won third award for a presentation on tumors of the small intestine. Honorable mention was bestowed on Doctors Becker, Bass and Robbins of the Newark Beth Israel Hospital for a display on pheochromocytoma.

The crowded business meetings will be reported in full in the TRANSACTIONS which will be mailed to all members later this summer.

Every county was represented, from Sussex which sent one member and two delegates to Essex which provided the Annual Meeting with 180 members and 73 delegates. The hotel was comfortable, the food was edible, the exhibitors were generous with samples and the weather though fickle, was interesting. Most of us felt that the Annual Meeting was a cheery and instructive interlude in the daily grind. The Medical Society of New Jersey is, after all, the only state medical association which has the world's playground in its home territory.

INJURIES TO PATIENTS ON MEDICATION

Have you had any patients who suffered accidental injury while under the influence of sedatives or after exposure to toxic drugs? Do any of your records disclose accidents because of some underlying physical handicap, such as impaired hearing, syncope, etc.? If so, you can contribute significantly to a study now being undertaken at the University of Rochester. This is part of a wider consideration of the medical aspects of accident control, concerned particularly with injuries and poisonings which occur in homes and on farms. There is special emphasis on accidents to children, since accidents are the leading cause of death in this age group, and second only to congenital malformations as a cause of permanent disability.

In dealing with industrial and traffic accidents some degree of mechanical and legal control is possible. In homes and on farms, where the accident rate is highest, the most authoritative influence is that of the practicing physician.

About 20 per cent of the total population have most of the accidents. There is evidence that many of these accident-prone individuals are suffering from physical or emotional disorders which can be diagnosed and treated. The baffling problem of accident control may well find its solution in the offices of private practitioners.

A request is therefore being made to doctors in New Jersey to help in this project. The immediate need is for case histories of the following type:

1. Records of patients who have had accidents while under the effects of medications, such as: antihistaminics, anticonvulsants, barbiturates, sulfa drugs, insulin, bromides, atropine, novocaine, etc.

2. Records of patients who have had accidents after exposure to toxic chemicals, such as: carbon tetrachloride, naphtha, etc.

3. Records of patients who have suffered kidney or liver damage after exposure to toxic chemicals. There is special interest in case-histories of such damage after exposure to carbon tetrachloride used for dry cleaning, as a solvent, or as a water-mark detector by stamp collectors.

4. Records of patients who have had repeated minor or major injuries because of some physical disorder such as: limited hearing, defective vision, orthopedic impairment, petit mal or psychomotor attacks, heart failure, diabetes, etc.

Physicians who have such records are urged to send abstracts to:

M. N. Gleason

Research Assistant, Department of Pharmacology, University of Rochester School of Medicine
260 Crittenden Boulevard, Rochester 7, New York

These abstracts will be welcomed, and suitable acknowledgment will be made to the participating physician.

SUPPLEMENTARY LIST No. 3 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Amato, Charles P., Box 612, Camden (4)
Bielski, Johannes, 180 Somerset st., N. Brunsw'k(12)
Black, Maskell B., 128 E. High st., Glassboro (8)
Buchan, Roland F., Prudential Ins. Co., Newark (7)
Canaan, Robert, 12-18 River rd., Fair Lawn (16)
Coburn, J. Wesley, 144 Harrison st., East Orange(7)
Crowley, Joseph W., 4005 Westfield av., Camden (4)
DiMarino, Anthony J., 735 Delaware st.,Paulsb'ro(8)
Fischer, Louise, 31 Lincoln Park, Newark (7)
Fowler, Richard M., Jr., 112 N. Indiana av.,Atl.C.(1)
Gibbins, A. Leslie, 60 Roseville av., Newark (7)
Heyman, Jacob, 846 S. 12th st., Newark (7)
Higi, Joseph E., 61 Hawthorne av., East Orange (7)
Horner, John I., 137 W. Kings Hwy., Audubon (4)
Kessler, Edward, N. J. State Hosp.,Greystone P.(14)
Lawsing, G. Conde, 443 66th st., West New York (9)
Lupo, Domenico, 763 Broadway, Newark (7)
Mathews, William J., 938 Hudson st., Hoboken (9)
Reinartz, Paul V., 763 Broadway, Newark (7)
Shulman, Philip, 172 S. Arlington av., E. Orange(7)
Smalley, Sara D., 530 Clifton av., Newark (7)
Stern, David A., 127 Lyons av., Newark (7)
Wegrocki, Adolph A., 588 Sanford av., Newark (7)
Wright, Walter A., 2 Broad st., Bloomfield (7)

ASSOCIATES

DeVito, Alfred T., 711 Grand av., Asbury Park (13)
Jones, Kenneth, 217 Smith st., Perth Amboy (12)
Manno, Bruno, 57 Belleville av., Bloomfield (7)

DR. QUIGLEY TO HEAD POLLAK HOSPITAL

Announcement has been made that Dr. Frederic J. Quigley of Union City, who was president of The Medical Society of New Jersey in 1933, has been selected as medical director of the Berthold S. Pollak Hospital for Chest Diseases at the Jersey City Medical Center.

Dr. Quigley has been active in the affairs of The Medical Society of New Jersey for many years and during the past decade was the executive secretary of our Subcommittee on Legislation. His resignation from that post represents a real loss to the Society, since in legislative work the "know how" is peculiarly important and represents a quality which cannot be learned overnight. During the years Dr. Quigley labored in behalf of organized medicine he acquired an artistry in the field which will be hard to duplicate.

OFFICIAL ATTENDANCE

183d ANNUAL MEETING APRIL 25-28, 1949

County	*Delegates*	*Members*	*Total*
Atlantic	10	75	85
Bergen	22	26	48
Burlington	4	21	25
Camden	16	54	70
Cape May	3	6	9
Cumberland	5	15	20
Essex	73	180	253
Gloucester	3	14	17
Hudson	29	40	69
Hunterdon	2	3	5
Mercer	19	52	71
Middlesex	12	44	56
Monmouth	9	50	59
Morris	7	15	22
Ocean	2	14	16
Passaic	23	19	42
Salem	3	3	6
Somerset	5	14	19
Sussex	2	1	3
Union	30	48	78
Warren	2	6	8
Fellows, Officers, Trustees, Councilors	18		18
	299	700	999
Visiting Physicians			74
Total Physician Registration			1073
Auxiliary			325
Visitors			249
Exhibitors			209
TOTAL REGISTRATION			1855

OBITUARIES

DR. HOWARD C. CURTIS

Dr. Howard C. Curtis of Moorestown, died suddenly of a heart attack on April 14, at the age of 56.

The son of missionaries, Dr. Curtis was born in Sendai, Japan. He returned to the United States and graduated from Oberlin College and received his medical degree from Columbia University School of Medicine. In 1924 he came to Moorestown and entered the general practice of medicine, later specializing in obstetrics.

Dr. Curtis was a member of the Philadelphia Obstetrical Society, the New Jersey State Maternal Welfare Society, former president of his county society, and at the time of his death its secretary. He was chief of obstetrics at the Burlington County Hospital, Mount Holly.

DR. CHARLES B. KAIGHN

Dr. Charles B. Kaighn, head of the x-ray department of the Atlantic City Hospital since 1941, died at his home in Atlantic City on May 13.

Born in Stratford, N. J., in 1892, Dr. Kaighn received his medical degree from Jefferson Medical College in 1914. After an internship at Pennsylvania Hospital, he served in World War I as an x-ray specialist in the Army Medical Corps.

Dr. Kaighn was radiologist at the Pine Rest Tuberculosis Sanatorium, Northfield, and the Betty Bacharach Home for Crippled Children in Longport.

DR. JOHN J. O'SHEA

Dr. John J. O'Shea of Weehawken died suddenly on April 9.

Born in Hoboken in 1906, he was graduated from Holy Cross College in 1926, and received his medical degree from Columbia University in 1930. Dr. O'Shea was a veteran of World War II.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

GEOFFREY W. ESTY, M.D., APPOINTED DIRECTOR, BUREAU OF CONSTRUCTIVE HEALTH

As Director of the newly created Bureau of Constructive Health, State Department of Health, Geoffrey W. Esty, M.D., Fellow of the American Academy of Pediatrics, assumed his duties June 1. Dr. Esty has been connected with the Department since 1941 and assigned to the former Bureau of Maternal and Child Health.

A resident of Westfield, Dr. Esty received his AB from Harvard in 1927, and was graduated from Harvard Medical School in 1931. He served an internship at Children's Hospital, Boston, Mass., in 1931 and 1932, specializing in pediatrics; a rotating internship at Fifth Avenue Hospital, New York, in 1932 and a pediatric residency at Babies' Hospital, New York City in 1833. He did graduate study in Switzerland in 1935.

Dr. Esty practiced pediatrics in Westfield, N. J., from 1934 to 1942. He became a Diplomate of the American Board of Pediatrics in 1938, and a Fellow of the American Academy of Pediatrics the same year.

In 1941, Dr. Esty became associated with the Bureau of Maternal and Child Health as supervisor of medical personnel, in charge of two hundred Baby-Keep-Well Stations and the instruction of physicians in preventive pediatrics. The following year, he was commissioned captain in the Army of the United States and was assigned to Fort Riley, Kansas, in charge of new-born service, women's and children's clinic, nurses, Red Cross workers, WAC's and wives of enlisted and officer personnel.

As Surgeon for the 18th Replacement Depot, Dr. Esty saw service in England, France, Holland, Germany, Belgium, servicing the 9th Army until 1945, when he was promoted to the grade of major.

Upon discharge from the Army, Dr. Esty rejoined the Division of Maternal and Child Health as full-time pediatrician. He resumed supervision of the program of supervision of Baby-Keep-Well-Stations, instruction of physicians and Maternal and Child Health nurses in practical preventive pediatrics and mental hygiene.

He has been associated with Dr. Julius Levy in giving courses at the School of Nursing, Seton Hall College and at similar classes in Newark, Trenton and Camden.

He has had rich experience in the field of socio-economics. He is a Trustee of the International Headquarters of the Henry George School of Social Science, New York City; a Trustee of the Lincoln Foundation, Phoenix, Ariz., and a member of the faculty of the Henry George School of Newark. Dr. Esty is a member of the Union County Medical Society.

NEW APPOINTMENTS

As part of the reorganization plan of the State Department of Health, and the first step in consolidation of its public health nursing program, Dr. Daniel Bergsma, State Commissioner of Health, has appointed Mrs. Gladys Jacoby Wilson to head the Section on Public Health Nursing. The Section will be part of the Bureau of Constructive Health, one of the six Bureaus of the reorganized State Department of Health.

Creation of the Section on Public Health Nursing is an innovation in New Jersey and such a service is a fundamental part of a modern State Department of Health.

Oscar Sussman, D.V.M., formerly with the United States Public Health Service, Communicable Disease Center, has accepted appointment as Senior Public Health Veterinarian on the staff of the State Department of Health. In this position, Dr. Sussman will be directly responsible to the Director of the Bureau of Environmental Sanitation. He will act as consultant to the Sections of Food and Drug, Milk and Ice Cream and Rabies Control. In addition he will coordinate and plan a program of animal disease control, where such diseases are thought to be transmissible to man.

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

T. Bruce Dickson, M.D., Reporter

On April 14 the *Burlington County Medical Society* met at the Riverton Country Club, to participate in panel discussion on compulsory health insurance. Members of allied medical professions and the auxiliary health services were invited.

Dr. Paul Sparks, president, welcomed the guests and introduced Dr. Joseph Kuder, who was moderator of the panel discussion. Mr. M. A. Linton, president of the Provident Mutual Life Insurance Company, spoke on compulsory health insurance from the layman's point of view. He said that "social security" legislation is potentially dangerous because the party in power can become a demagogue or dictator. The belief that people are getting something for nothing tends to perpetuate the party in power. Mr. Linton stated that compulsory health insurance will lower medical standards. He urged the medical profession to formulate a sensible and workable plan and then push it with all the energy at their command.

Dr. R. W. Betts spoke on "Exposition of Bill S-5." This bill promises to give the public every type of medical, dental, nursing and hospital care free. Also expensive drugs at no cost—if the money holds out. The local administrator would be boss in his area. The Federal Security Administrator in Washington would be the big boss over the whole country.

Dr. W. E. Bray predicted that if the government's health insurance program should become law, the people will receive inferior medical care and the physicians and allied services will work longer and earn less.

Dr. R. Buckley presented the "Economic Phases and Implication of Compulsory Health Insurance". The cost per capita of this plan would be $50 a year and there are 150,000,000 people in this country. Estimated administration cost is $700,000,000, which does not take into account the erection of health centers and new hospitals. Total yearly cost will approach ten billion dollars. Dr. Buckley said that the Soviet Union has the ideology which we the citizens of the United States are being asked to adopt.

The "History of the Past Performance of State Control of Medical Practice" was related by Dr. E. V. Davis. He outlined the state controlled medical plans in Germany, Austria, France and New Zealand. In each case the expense has been high and the standards of medical practice low. Twenty years ago American physicians frequently went to Germany to further their education. Today the physicians of European countries would gladly give up their birthright to come to this country to study and practice their profession. At this point Dr. Kuder read a few letters from doctor friends in England. They depicted the same situation in England in December 1947 as United States is at this time. Then 80 per cent of the English doctors were against their compulsory health plan. However, the plan was adopted. As time went on the relationship of doctor to patient rapidly disintegrated. Physicians are now greatly overworked and medical standards have reached a new low. One of Dr. Kuder's friends left England and went to South Africa so that he could practice medicine as his conscience dictated. Many other physicians would like to do the same. The last letter which Dr. Kuder read (dated December 1948) said that many English families are reverting to the old system of doctor and patient.

The "Summary of the Situation" was given by Dr. P. MacNeal. He warned that government propaganda often masquerades as the voice of the people. If the present bill S-5 becomes law, taxation due to increasing medical expenses will become overpowering and the quality of medical standards will decline.

Dr. Sparks introduced Mr. C. H. McCray of the State Temporary Disability Insurance Division who explained this new law. Several members asked Mr. McCray questions which he readily answered clearing up a few doubtful points.

At the March meeting Dr. William Betsch of Moorestown was elected to membership.

CAMDEN COUNTY

Louis G. McAfoos, Jr., M.D., Reporter

The final meeting of the *Camden County Medical Society* for the 1948-49 season was held at its organizational headquarters, 729 Federal Street, Camden, on May 3.

The nominating committee recommended the following panel of officers for 1949-50, all of whom were unanimously elected: *President,* Dr. A. M. K. Maldeis; *President-Elect,* Dr. O. R. Kline; *Vice-President,* Dr. W. A. Crist; *Recording Secretary,* Dr. William Braun; *Treasurer,* Dr. K. L. Athey; *Historian,* Dr. Helen F. Schrack; *Reporter,* Dr. L. G. McAfoos, Jr.; *Trustee,* Dr. R. S. Gamon; *Censor,* Dr. R. L. Sharp.

Elected to the executive committee: Dr. Edwin R. Ristine, Dr. Harold K. Eynon and Dr. Walter A. Crist. Dr. Harold D. Barnshaw was elected to membership on the scientific and literary work committee and was appointed chairman of the annual outing committee.

Dr. R. S. Gamon and Dr. O. R. Kline were elected delegate and alternate respectively, to the nominating committee of the State Medical Society, and seven delegates and alternates to the state society were elected.

Delegates to the seven South Jersey county medical societies were elected as follows: *Atlantic County,* Dr. H. P. Coxson and Dr. H. C. Schwartz; *Burlington County,* Dr. H. P. Shipps and Dr. H. D. Barnshaw; *Cumberland County,* Dr. H. B. Decker and Dr. C. L. S. Brennan; *Cape May County,* Dr.

P. M. Mecray and Dr. E. A. Y. Schellenger; *Gloucester County*, Dr. O. R. Kline, Dr. H. W. Jack and Dr. K. B. MacAlpine; *Salem County*, Dr. R. S. Gamon and Dr. J. P. Brennan.

Dr. David F. Bentley was elected to membership on the nominating committee of the county society.

A motion was also passed that Mr. Allen R. Eckman be retained as Public Relations Counsel and Editor of the Society's Monthly Bulletin for the ensuing year.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

With Dr. Frederick Faux in the chair, the regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, on April 21, at 9:00 p. m. Following a short business meeting, the program was turned over to Chester I. Ulmer, M.D., who as Councilor of the Fifth District, presided at a stated meeting of the Fifth Councilor District. Dr. Ulmer aptly introduced the speaker of the evening, F. F. Borzell, M.D., Speaker of the House of Delegates of the American Medical Association.

Because of the number of invited lay people present, including the doctors' ladies, many of Dr. Borzell's remarks were directed to them. His topic *American Medicine Throws Down the Gauntlet* dealth with the threat of socialized medicine, and demonstrated what efforts were being made by organized medicine to fight this blighted philosophy, mainly by educating the American public. Much open discussion followed Dr. Borzell's address, with appropriate comment from Dr. Frederic Quigley and Mr. James Bryan.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

Hudson County Medical Society held its regular monthly meeting on March 1, at Murdoch Hall, Jersey City Medical Center, with Dr. D'Acierno presiding.

Dr. Ginsberg, chairman, announced that the course in Elementary Electro-cardiography is now in progress, with twenty-eight in attendance.

Dr. Butler reported on the conference of state medical society representatives with the Coordinating Committee of the American Medical Association which he attended in Chicago on February 12, held for the purpose of outlining the strategy and policies of the A.M.A.'s educational campaign against compulsory health insurance.

The present law regulating temporary disability insurance, which became effective on January 1, 1949, was explained from both the doctor's and the patient's viewpoint by Mr. Millard E. Cuskaden, Supervisor of Disability Insurance Service of New Jersey.

Dr. Donnelly announced that Dr. Daniel B. Street of Jersey City has received the nomination of Hudson County Medical Society for the 1949 General Practitioner's Award of the State Society.

Dr. Donnelly announced an open meeting of the Health Division of Hudson County Council of Social Agencies on Friday, March 18, at Murdoch Hall, Jersey City Medical Center, at which Dr. Daniel Bergsma, State Commissioner of Health is to be guest speaker on the subject: "New Jersey's Public Health Program".

The following report on nominations for the year 1949-50 was read by Dr. Evans: *President*, Dr. Vincent P. Butler; *Vice-President*, Dr. Noah Meyerson; *Secretary*, Dr. Joseph P. Donnelly; *Treasurer*, Dr. Anthony J. Conty; *Reporter*, Dr. Harry J. Perlberg.

The following were nominated to serve for a period of 3 years, to 1952: Board of Trustees—Dr. Joseph F. Londrigan, II; Dr. Hugh H. Tyndall; Board of Censors—Dr. A. E. Jaffin; Audit Committee—Dr. M. J. Weiss; Publication Committee—Dr. M. E. Boylan, Dr. J. J. O'Shea, Dr. S. A. Cosgrove, Dr. W. J. Snyder; Committee on Constitution and By-Laws—Dr. Miles T. Long: Legislative Committee—Dr. V. P. Butler, Dr. F. A. Marshall, Dr. R. S. Driscoll; Maternal Welfare Committee—Dr. A. A. Mutter, Dr. J. H. Jentz, Dr. P. A. D'Acierno.

The following were nominated to serve for 1 year (1950): Delegate to State Nominating Committee—Dr. James F. Norton; Alternate to State Nominating Committee—Dr. J. Lawrence Evans; Election Committee—Dr. S. G. Scott, Dr. L. A. Schneider, Dr. J. A. McCarren, Dr. J. C. Talty, Dr. Wm. M. Doody, Dr. Samuel Schept, Dr. J. J. Danielson.

The following were elected to membership: Dr. Marcus E. Carpenter, Dr. Harold P. Pariser and Dr. Fil de Pasquale of Jersey City and Dr. William M. O'Connell of Weehawken.

James F. Norton, M.D., President-Elect, The Medical Society of New Jersey, was speaker of a Special Session. His subject was *A.M.A. Plan for National Health.*

Hudson County Medical Society held its regular monthly meeting on April 5, at Murdoch Hall, Jersey City Medical Center. Dr. D'Acierno presided.

Dr. Conty nominated the following members to serve as the Nominating Committee in 1950: Dr. J. L. Evans (Chairman), Dr. J. A. Botti, Dr. E. M. Kiely, Dr. W. M. Doody, Dr. Harold Sager.

The following military personnel were present as guests: Dr. Frederick A. Batzle, Chairman Military Manpower Committee, Jersey City Recruiting District; Lieutenant Colonel Raymond Bunshaw, Chief of Operation and Training, First Army; Major Thomas D. L. Cronan, Procurement Officer, Jersey City Recruiting District; Colonel Clement St. John, Army Medical Corps, First Army Surgeon, Governors Island, N. Y.

Colonel St. John addressed the members, explaining the Army's need of medical officers during the coming year.

Dr. Douglas Quick, former attending surgeon and director, Radiation Therapy, Memorial Hospital, New York City, was the guest speaker. Dr. Quick spoke on *Cancer of the Head and Neck.*

MIDDLESEX COUNTY

William M. Winn, M.D., Reporter

The regular monthly meeting of the *Middlesex*

County Medical Society was held on April 20, at the Roosevelt Hospital, Metuchen, with DR. F. M. CLARKE, the president, presiding.

DR. EDWARD M. BRADY of New Brunswick was elected to a two year period of Associate membership.

DR. J. H. ROWLAND presented a resolution on DR. RENE G. SCHIRBER, who passed away on March 18, 1949.

This resolution was adopted by the Society.

The following communications were read:

1. Letter from Colonel Duckwall requesting volunteers of medical officers for periods of two weeks to one year active duty with the army.

2. Letter from The Medical Society of New Jersey regarding payment of the special A.M.A. assessment.

3. A letter from the Shearon Medical Legislative Service requesting the continuation of our subscription to the Shearon Medical Legislative Service. This was ordered tabled.

4. A letter from the New Brunswick Trust Company re stock held by the Society. It was moved and passed that the Treasurer notify the bank that the Society desires to liquidate this stock.

5. A motion by Dr. Rowland that the Society purchase 25 sets of Official A.M.A. Auto Emblems at $3.00 per emblem was defeated.

The resignations of Dr. Benjamin Mann as a delegate, and Drs. B. F. Slobodien and Sol Gurshman, alternates, were accepted.

On motion moved and passed, DR. SOL GURSHMAN was elected to replace Dr. Mann; Drs. S. A. GADEK and JACK E. SHANGOLD of Perth Amboy, were elected as extra delegate and alternate for 1949. DRS NORMAN ROSENBERG of Highland Park and THOMAS F. MACLAUGHLIN of Metuchen were elected as alternate delegates to replace Drs. Gurshman and Slobodien.

Dr. Sandella, program chairman, reported on plans for the meeting. On motion by Dr. F. S. Taber, it was moved and carried to abolish the June meeting because of the A.M.A. convention being held in Atlantic City at the same time.

Dr. Sandella read a Resolution from the New Jersey Pharmaceutical Association expressing their firm opposition to the passage of Bill S-5 pending before the Senate of the United States, which has for its purpose the establishment of compulsory health insurance in this country.

The Pharmaceutical Society requested a liaison committee to meet with them. This was passed on motion and Dr. Clarke was directed to appoint such a committee.

Acceptance of "Principles of Medical Ethics" in toto was postponed until certain ambiguities in Article 4 and Section 3 could be cleared up.

Dr. Clarke read a letter from Dr. James F. Norton, chairman of the special coordinating committee on emergency educational campaign. He announced the appointment of Dr. J. S. Van Mater of New Brunswick to serve as the county society's member on the New Jersey Committee of Twenty-One.

Dr. Van Mater, reporting for the public relations committee moved that a resolution be sent to our Congressmen to the effect that the Middlesex County Medical Society is opposed to federal medicine in any form. Dr. Van Mater was directed to frame and send an appropriate telegram to the members of Congress.

Dr. Toy reported for the medical practice committee that the complaints received by the members have been adjusted and that a report would be presented at the next meeting of the Society.

Mr. Millard Cuskaden of the Disability Insurance Service of the State of New Jersey addressed the meeting briefly on the new disability plan and answered questions put to him by members.

SOMERSET COUNTY

H. E. Cook, M.D., Reporter

Under the chairman of DR. A. F. MANGELSDORFF, its president, the *Somerset County Medical Society* held its regular monthly meeting at the Somerset Hospital Nurse's Auditorium, on April 14.

Dr. George A. Glass introduced the speaker of the evening, DR. BENJAMIN DAVERSA, who spoke on *Toxemias of Pregnancy.*

Following the scientific session our Society had the great pleasure of hearing our distinguished State Society President, DR. J. HOWARD HORNBERGER, give us a brief preview of the coming State Convention and extend a cordial welcome to all.

A business session followed and Dr. Mangelsdorff introduced MRS. LEWIS C. FRITTS, president of the Woman's Auxiliary who spoke to us on the proposed *County Council of School Health.* Following her talk it was voted that we give our approval to the proposal. A committee to be assigned by the executive council, will work with the Auxiliary in the organization of this council.

June 16 was designated as the Annual Meeting and Clam Bake.

Dr. Lewis C. Fritts was appointed chairman of the Coordinating Committee on Emergency Education Campaign.

DR. BERNARD MARCUS was approved as doctor in charge of Baby Keep Well Clinic of Bradley Gardens, N. J.

UNION COUNTY

E. M. Satulsky, M.D., Reporter

Ciba Pharmaceutical Products, Inc., of Summit, was host to the regular meeting of the *Union County Medical Society* on May 11. DR. FREDERIC W. LATHROP, the newly elected president, called the meeting to order at 9 p. m. After a short business meeting he introduced the guest speaker, DR. J. LOWRY MILLER, assistant associate professor of Dermatology, College of Physicians and Surgeons, Columbia University. Mr. Miller spoke on *Bacitracin and Other Antibiotics in the Treatment of Skin Disease.* The talk was illustrated by Kodachrome slides. There was an exhibition on *Bacitracin in Local Therapy.*

WOMAN'S AUXILIARY

ACCEPTANCE OF THE GAVEL

MRS. NORMAN NATHANSON

It is truly beyond the power of mere words adequately to express my heart-felt appreciation for the honor you have bestowed upon me in electing me your president. I will do all that is within my power to merit the confidence you have placed in me. The scope of the Auxiliary has been broadened considerably over the past few years. Programs that have been of untold value and that have been a distinct contribution to the health and welfare of our state have been instituted. We plan to carry on these programs with increased vigor.

We are facing very momentous times in the medical profession. The Auxiliary can and should exert great influence on the subject of government health programs to mould them into a worthwhile pattern. An educational program for and by Auxiliary members on current legislation would be invaluable toward this end. The old expression "shoulder to the wheel" still aptly explains your part in the auxiliary. Without your loyal help and support we cannot go forward. I look for your confidence, your advice, and your help; for with it our Auxiliary will grow, will prosper, and be worthy of the high esteem with which it is now held.

Again, my sincere thanks for the honor you do me, my sole desire will be to justify the trust you place in me. I do herewith pledge my loyalty to the Woman's Auxiliary to The Medical Society of New Jersey and its programs and its high ideals.

AUXILIARY PROGRAM 1949 - 1950

1. Greater employment of the Auxiliary influence in opposing current government health programs.
2. Interpret and extend the aims of the medical profession to all organizations interested in the advancement of health and health education.
3. Cultivate friendly relations and promote mutual understanding among physicians' families.
4. Correlate the activities of the Auxiliary Public Relations and Legislative Committees with the corresponding committees of the Medical Society.
5. Continue to issue the state auxiliary *Bulletin* and the New Jersey *News Note*.
6. Promote *Hygeia*.
7. Increase Auxiliary membership.
8. Extend the rural health program.
9. Conduct the third annual conference workshop.
10. Present the third annual Public Relations Day Program—"Medical Services and Health Facilities Available in New Jersey".
11. Educational program for Auxiliary members on current legislation.
12. Assist in the entertainment at all New Jersey conventions of the American Medical Association and of The Medical Society of New Jersey.

CONVENTION MEETINGS

The Woman's Auxiliary to The Medical Society of New Jersey held its 21st Annual Convention at the Ambassador Hotel, Atlantic City, April 26, 27 and 28, 1949.

Mrs. Robert B. Walker, president, declared the Convention in session at a pre-convention Board Meeting on April 26. Special attention was called by Mrs. Allman to the importance of presenting the credential cards of the delegates registering during the Convention. Without cards, delegates cannot be registered by the credentials committee. Mrs. Asher Yaguda suggested the use of an Auxiliary Speaker's Bureau.

An informal tea, at 3:30 p. m., to which all physicians' wives were invited, was very well attended.

The General Session of the Convention opened on the morning of April 27, with Mrs. Walker presiding. Invocation was given by Reverend Harvey Bennett, D.D., First Presbyterian Church of Atlantic City. Mrs. Harry Subin, president, Woman's Auxiliary to The Atlantic County Medical Society, welcomed

the Convention. Mrs. Norman Nathanson, president-elect of the State Auxiliary, in response, expressed the gratitude we felt to Atlantic County as Convention Hostess. Mrs. Oswald R. Carlander conducted an impressive memorial service for departed members. They were: Mrs. John Owens, Camden; Mrs. Edward Sprague, Essex; Mrs. Thomas Halligan, Hudson; Mrs. R. J. Howell, Mercer, and Mrs. William Jones, Somerset.

Mrs. Luther H. Kice, president of the Woman's Auxiliary to The American Medical Association was the guest of honor at the meeting. Other guests were Mrs. Lawrence Jones and Mrs. Roger Murray of the Woman's Auxiliary of the Medical Society of Delaware and Mrs. Drury Hinton and Mrs. M. Brodocian of the Woman's Auxiliary of the Medical Society of Pennsylvania.

Following the luncheon honoring Mrs. Walker the general session continued its business meeting. Mrs. Stewart Alexander read resolutions to thank Mrs. David B. Allman and her committee for their efforts in behalf of the Auxiliary, with similar thanks to Atlantic County Auxiliary and to the manager of the Ambassador Hotel. The following newly elected officers were installed: president, Mrs. Norman Nathanson; president-elect, Mrs. R. John Cottone; first vice-president, Mrs. B. H. Dyer; second vice-president, Mrs. Banks S. Baker; recording secretary, Mrs. Francisco Figurelli; corresponding secretary, Mrs. Irving Baer, and treasurer, Mrs. Asher Yaguda.

POST-CONVENTION BOARD MEETING

The post-convention board meeting was called to order by the president, Mrs. Norman Nathanson, on April 28. The names of the new committee chairmen were read. The importance of having each county send representatives to the workshop on June 13 was stressed. Dr. James F. Norton, president of The Medical Society of New Jersey, brought greetings and said compulsory health insurance should be first on our agenda. High degree low cost medical care available on a wider scale is our interest said Dr. Norton. We should impress people that we are sympathetic with their problem and that a health program is important but—a voluntary one. He emphasized that we have truth so we shall succeed.

Dr. William E. Dodd, chairman of the Advisory Committee to the Auxiliary, read the new By-Laws governing the activity of the Auxiliary. He also stated that the overall program of Mrs. Nathanson had been approved by the Advisory Committee and Dr. Norton.

Mrs. Nathanson read her tentative program and it was approved.

Mrs. Paul Rauschenbach outlined the public relations program for the conference on May 23, and urged cooperation and attendance.

Mrs. Nathanson closed the meeting with a poem to express her philosophy—

Make an adventure of all that you do—Do it with a purpose and zest
Looking at life from the broad point of view—giving your utmost and best.
Take every check as a challenge from fate—Rise above failure and fear.
Face up to everything, small things and great—With a good heart and good cheer.
Make an adventure of life. Let it be—Thrilling, inspiring and gay
It's up to you—You can choose. You are free—To make what you will of each day.

LUNCHEON HONORING MRS. ROBERT B. WALKER

The luncheon honoring Mrs. Robert B. Walker was outstanding in its setting of tables for the guests of honor and the past presidents, the flower arrangements vying for honor among the colorful and perfectly lovely hats of the ladies present.

Mrs. Frederick G. Wandall was her usual gracious and charming self in the capacity of toastmistress, as she introduced the honored guests and past presidents. Dr. J. Howard Hornberger expressed his appreciation for the help of the Auxiliary and suggested a joint general session of the Auxiliary and the Medical Society at the next Annual Meeting.

Mrs. Wandall introducing Mrs. David B. Allman as president-elect of the National Auxiliary said that Mrs. Allman will have an office she not only rightfully deserves, but will fill with grace and dignity. This will place New Jersey on the important level it deserves. New Jersey never before has had a national president.

Mrs. Luther H. Kice, national president of

the Auxiliary in her address gave her slogan of the last few months:—

I am only one but still I am one
I can't do everything but because I can't do everything
I will not refuse to do the something I can do.

Mrs. Walker in welcoming the guests and members, paid tribute to Dr. J. Howard Hornberger, President of The Medical Society of New Jersey and Dr. William E. Dodd, Chairman of the Advisory Committee to the Auxiliary. Mrs. Walker stated the Auxiliary had progressed until today we are beginning to fill our rightful role in the field of public relations and in assisting the Medical Society in their fight against federally controlled medicine. She further stated that to progress we must have friendship among our members, vision, courage, leadership and harmony. There is no place in our organization for discord, defeatism or smugness. If we work together through the years, for one common cause, we will eventually be one of the most influential organizations in existence.

Frank G. Dickinson, Director of the Bureau of Medical Economic Research of the American Medical Association was the guest speaker of the afternoon. Phenomenal health progress largely accounts for current interest in "cradle-to-the-grave" schemes, including socialized medicine, said Dr. Dickinson. Furthermore, the number of people 65 years of age and over has quadrupled in this half century; whereas the total population of the United States has only doubled. These phenomenal gains in length of life justify calling this period "man's greatest half century". In this half century, the United States has achieved more health progress than occurred in western Europe during the preceding five to ten centuries. Dr. Dickinson stated that the present agitation for compulsory sickness insurance was not justified by medical care costs, because, although these costs have risen in the past 20 years, they have remained about four per cent of the American family budget, compared with a current six per cent for recreation and for alcoholic beverages. Physicians' fees have risen only half as fast as the cost of living during the 1940's, he emphasized. Following Dr. Dickinson's talk, Mrs. Lodovico Mancusi-Ungaro, junior member of the Fellowettes, presented the Past-President's pin to Mrs. Walker.

AUXILIARY REPORTS

ATLANTIC—The Woman's Auxiliary to the Atlantic County Medical Society recently gave a beautiful luncheon at the Hotel Traymore in honor of Mrs. David B. Allman, president-elect of the Auxiliary to the American Medical Association. Mrs. Allman expressed her gratitude to the members for the honor bestowed upon her and her appreciation for the fine record Atlantic County has made in the state. The following officers for 1949-1950, were installed: president, Mrs. Louis Rosenberg; president-elect, Mrs. Clarence Whims; first vice-president, Mrs. Rolfe Westney; treasurer, Mrs. Arthur Dintenfass; recording secretary, Miss Gertrude Guion. The following members volunteered to assist the County Visiting Nurses and Tuberculosis Associations in their campaign to x-ray all the citizens of Atlantic County: Mrs. Irving Shavelson, Mrs. Daniel Reyner, Mrs. Matthew Molitch, Mrs. Harry Subin, Mrs. Clarence Whims, Mrs. M. Holoman and Mrs. Arthur Dintenfass.

CAMDEN—The annual inaugural luncheon of the Woman's Auxiliary to the Camden County Medical Society was held at the Haddon Fortnightly Club, Haddonfield, on May 3. A brief business meeting was conducted by Mrs. Barnshaw, president, after the luncheon. The following officers were installed: president, Mrs. Harold K. Eynon; president-elect, Mrs. Thomas McGlade; first vice-president, Mrs. H. F. Westcott; second vice-president, Mrs. Wilmer Burns; treasurer, Mrs. Benjamin F. Lee; recording secretary, Mrs. Martin Swiecicki; corresponding secretary, Mrs. William J. Browning, II. Mrs. Joseph E. Roberts presented the past-president's pin to Mrs. Harold D. Barnshaw. The gavel was given to Mrs. Eynon and she announced her committee chairmen for the ensuing year. She introduced Mr. Hury Martin who entertained with several solos. A splendid book review was given by Mrs. Howard Middleton.

HUNTERDON—The Woman's Auxiliary of the Hunterdon County Medical Society held their first meeting of the 1949-50 season on Tuesday evening, May 3, at the Clinton House following a dinner with the Medical Society. Officers for the ensuing year were elected as follows: president, Mrs. John B. Fuhrmann; secretary, Mrs. Henry Dantzig; treasurer, Mrs. Frank Clark. The president appointed Mrs. Samuel Felder as chairman of the Public Relations Committee and Mrs. G. B. Tompkins as chairman of the Publicity Committee. Mrs. Lloyd Hamilton will complete her work of last year concerning the formation of a council for the betterment of school health in Hunterdon County.

BOOK REVIEWS

An Introduction to Gastro-enterology. By Walter C. Alvarez, M.D. 4th ed. Pp. 903 with 269 illustrations. New York, Paul B. Hoeber, 1948. ($12.50)

The author has long been concerned with the mechanics involved in getting food from the mouth to the anus. If we consider that the laboratory animal can accomplish this feat along with all the processes of digestion without benefit of vagus or splanchnic nerves, we must at once tender considerable respect to the autonomy of the bowel while recognizing how complicated, in essence, is this simple physiologic necessity. Many attempts to explain the polarity of the intestine are reviewed before the author launches his "gradient theory," which he purports is a gradation in tone, irritability and activity from the pylorus down the reaches of the bowel. Actually there are many other gradations, including muscle layer, secretion, chemical and so forth. Gastro-intestinal symptomatology including such homespun complaints as nausea, vomiting, regurgitation, and belching are explained along the lines of what the author considers their etiology, that is, a reversal of those waves that provide mechanical transport of food and residue through the tract.

Smooth muscle presents many mysteries among them being its contractions. Much impetus has been given this question by the revival of an old procedure now termed "vagotomy". The author concludes that rhythmic contraction of smooth muscle can go on in the absence of nerve cells.

Of interest is the chapter on stomach movements and gradients in its muscular wall. The author looks forward to the day when a certain type of heartburn will be the result of a shift in the pacemaker of the stomach, or the results of "stomach block". As he says, "the pylorus relaxes at the bidding of the duodenum and is much like a small funnel which will allow solids through it no larger than its bore". Although the duodenal cap is built much like the pylorus there is no anatomic continuity. There is still reason why peptic ulcers occur in the stomach and the duodenum, while carcinoma stops at the pyloric barrier. There is still no explanation for hunger contractions nor for ulcer pain.

The chapters devoted to progress of food through the intestines and to constipation should be read by any physician who has had to listen to the horrible misconceptions his patients have gathered. There is a chapter on the electrogastrogram which is in its infancy. The book closes with a section on technic which describes the experimental aspects of the present day laboratory. There is a huge bibliography.

This is truly no book for the beginner nor a primer on gastroenterology for the busy practitioner. It is a challenge to blunt acceptance of threadbare dogma, and a springboard for those whose questioning faculty makes them yearn to plunge into the turmoil of research. It is not an easy book. Many times this reviewer has timorously returned to it, reflecting upon one of its typical passages: "everyone knows of the tendency to diarrhea shown by animals and men under the influence of fear, and many is the nervous suitor who curses the tendency of his bowels to rumble when he approaches his beloved".

Andrew J. V. Klein, M.D.

Handbook on Fractures. By Duncan Eve, Jr., M.D., in collaboration with Trimble Sharber, M.D. Pp. 263 with 129 illustrations. St. Louis, C. V. Mosby Company, 1947. ($5.00)

Here is a *vade mecum* for the younger or occasional worker in the field who needs practical guidance with a minimum of polemics. The book is clearly written and well illustrated. It includes chapters on immobilization methods, open reduction, internal fixation, and compound fractures and their modern management. The detail provided is adequate to guide treatment in all but the unusual case.

Several practical points in this book have not been noted by us elsewhere. Among these are a useful aid in better x-ray visualization of the femoral neck. Also noted is a desirable way to study the carpal scaphoid in three films.

One wonders whether the treatment advised by the authors for Bennett's fracture of the thumb metacarpal corresponds with that generally used. They do not deem it necessary to use fixed traction in this notoriously unstable fracture.

On the whole, the book is recommended highly for its intended audience.

Bernard Chromow, M.D.

Abdominal Operations. By Rodney Maingot, M.D. Pp. 1274. New York, Appleton-Century-Crofts, Inc., 1948. ($16.00)

This second edition brings an authoritative and practical book as up to date and complete as any textbook in such a rapidly changing field can be. It exhaustively treats, with 1051 illustrations and 16 of the best color plates, the technic, diagnostic data, choice of operation, difficulties and dangers which may confront the surgeon, and pre- and post-operative care. The text embodies a wealth of experience in surgical calamities of the acute abdomen with which all surgeons are so familiar. This reviewer regrets the omission of any reference to the treatment of the excessively redundant megacolon encountered occasionally in adults and so likely to result in volvulus of the sigmoid and descending colon.

If the author is repetitious at times, particularly in regard to pre- and post-operative care and complications and surgical technic, one can accept the repetitions as a desirable feature in a reference book. The use of references throughout the text (instead of in footnotes or at the end of chapters) is another desirable feature. The larger type and wide spacing of the pages are easy on the eyes and make for rapid reading.

The book is highly recommended for the reading and reference use of every abdominal and general surgeon, surgical resident and intern.

Arthur J. D'Alessandro, M.D.

Psychodynamics and the Allergic Patient. By Harold H. Abramson, M.D. Pp. 81. St. Paul and Minneapolis, Bruce Pub. Co., 1948. ($2.50)

This unusual monograph consists of an historical review of allergy. The bulk of the work is devoted to a panel discussion by eminent specialists. The American College of Allergists, recognizing the psychiatric aspects of allergy, arranged a forum in which multiple points of view could be expressed. A transcript of that session has been published in this form. Illustrative case records dot the text and short but highly personal discussions light up the entire subject matter.

This short monograph is as timely as any book can ever be. All students of allergy, psychiatrists and internists should keep abreast of opinion by reading this report.

IRVING SHAPIRO, M.D.

Doctors of Infamy. By Alexander Mitscherlich, M.D., and Fred Mielke. Translated by Heinz Norden. Pp. 172. Henry Schuman, New York, 1949. ($3.00)

A reader with an unstable stomach, a low threshhold of indignation or considerable emotional delicacy should avoid this book and confine his reading to something pleasantly gruesome like multiple-corpse detective stories. For here are described tortures which will certainly produce nausea among squeamish readers. The sad fact must be recorded, that the torturers were doctors of medicine. Their justification was that these were medical experiments aimed at the advancement of science; and that as doctors, they were simply employees of the state, and therefore obliged to follow orders. Not a single useful medical fact ever came out of this orgy of sadism. And if, by becoming an employee of the state, a doctor abandons his own conscience and his own dedication to relieve human suffering, then —well, write your own answer to that one.

The book is essentially a straight documentary, being made up largely of testimony given at Nuremberg in the trial of 23 Nazi medical men accused of atrocities on political prisoners, aged people, the infirm, women and prisoners of war. The publisher tells us that since 1947, when the original German version of the text appeared, there have been strong efforts to prevent an English translation and an American distribution of the book. We are told, that under pressure from their European colleagues, the original authors disavowed this American edition (which they had previously authorized) and tried to get its publication suppressed by invoking the regulations of the Alien Property Custodian. Fortunately this effort failed; no prohibitive action was taken by American authorities, and the book now appears on schedule.

Chapters are contributed by Brigadier General Taylor (U. S. Chief of Counsel for War Crimes), by Dr. Leo Alexander (Consultant to the Secretary of War) and by Andrew C. Ivy (vice-president of the University of Illinois). Also included is the modernized version of the Hippocratic Oath as suggested by the World Medical Association. It includes the new clause: "Even under threat, I will not use my knowledge contrary to the laws of humanity".

There are sixteen pages of photographs. Most of these illustrate the trial, but a few of them show some of the human guinea pigs in the course of their anguish. The book could, with justification, be made required reading for those who are worried about the propriety of the war guilt trials.

V. HUBERMAN, M.D.

Clinical Aspects and Treatment of Surgical Infections. By Frank Lamont Meleney, M.D. Pp. 840. Philadelphia, W. B. Saunders Company, 1949. ($12.00)

This monograph should be of interest to all practitioners of medicine and not only to surgeons. It deals not alone with surgical technic but describes in detail the modern management of infections which the general practitioner can carry out. Dr. Meleney has had a long experience in the bacteriologic cause of surgical diseases and his development of zinc peroxide and bacitracin is well known to the profession. His views are authoritative but not dogmatic.

The subject matter is well arranged and easily read. The presentation of case history to illustrate the subject under discussion is decidedly helpful in evaluating the role of the various procedures. The description of cases treated before the era of the sulfa drugs and antibiotics impresses the reader with the fact that these drugs are valuable adjuncts in dealing with infections but that they are not panaceas. Surgical intervention at the proper moment must not be neglected. The author decries the fact that these newer drugs are used indiscriminately and he "cannot stress strongly enough his belief that the causative organisms must be determined whenever possible and cultures must be taken before treatment is begun. However, while awaiting the results of the culture, the agent most likely to control the infection should be administered and the treatment changed if the results of the culture indicate that some other agent is more potent against the organism concerned."

HENRY REICH, M.D.

Mayo Clinic Diet Manual. By The Committee on Dietetics of the Mayo Clinic. 329 pp. Philadelphia, W. B. Saunders Company, 1949. ($4.00)

In this convenient, loose leaf binder, the Mayo Clinic has compiled a list of the therapeutic diets in common use at their clinic hospitals. The text includes the diets prescribed in gastro-enterology, cardiology, diabetes, obesity, general and special surgery, and the metabolic diseases.

Each section is prefaced by a brief discussion of the physiologic principles involved in treatment. The diet is given as a list of foods included and excluded, followed by a sample menu.

The book is adapted to furnish a source of standardized diets or to provide the basis for individual modifications. It can be well recommended as a thorough, competent and convenient guide to dietotherapy in medicine.

HERBERT B. SILBERNER, M.D.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **June, 1949** **No. 6**

EVERY argument used to encourage the examination of apparently healthy persons for the purpose of finding unsuspected tuberculosis gains added force when applied to college students. If tuberculosis is found among them in the early stage when it is more easily cured, future and potentially valuable citizens are saved for productive lives.

TUBERCULOSIS AMONG COLLEGE STUDENTS

Modern tuberculosis case-finding techniques applied to groups of apparently healthy people are productive of important, instructive and often startling results. Active and communicable cases of tuberculosis are not infrequently found where there is no other evidence that anything is amiss. Fortunately, the majority of cases so discovered are in an early or a minimal stage of the disease, when the chances for rapid, complete recovery are best.

To no other population group are the above statements of more importance than to college students. These young men and women are at the highest level of health, strength and vigor and from their ranks are recruited leaders for the various fields of human endeavor. From their ranks are also recruited many cases of tuberculosis.

For 17 years the Tuberculosis Committee of the American Student Health Association has been promoting interest in tuberculosis among the institutions of learning in the United States. For more than 10 of these years, all colleges have repeatedly been urged to develop a tuberculosis control program, and many have, although in some colleges tuberculosis still is not recognized as a serious threat to students.

The curve of college participation has shown an almost constant upward trend. For reasons that are not entirely clear, the 1947 returns show fewer programs reported. Each of the 885 institutions to which a questionnaire was sent was asked to return the questionnaire but only 311 replies were received, of which 259 reported a program.

In spite of lessened returns many cases of tuberculosis were discovered among college students. The total number of cases, presumably of the "reinfection" type, reported for 1946-47 was 630, and all but nine were found at colleges having anti-tuberculosis programs. In 1946-47, 590 arrested cases of tuberculosis were again permitted to resume their college work. They emphasized the fact that "they *do* come back."

Programs Employing the Tuberculin Test and X-ray of Reactors

Colleges depending primarily upon the tuberculin test as their initial screening method numbered 105. Based on adequacy of data submitted, apparent proportion of student body tested and number of reactors X-rayed, 24 programs were roughly classified as "excellent," 34 as "good," 33 as "fair" and 14 as "poor". A college has an "excellent" program when entering students are tuberculin tested and reactors among them X-rayed, and when, each year, upper classmen non-reactors are retested and reactors re-X-rayed.

In recent years an increasing number of colleges have reported the use of both the tuberculin test and the chest X-ray for all entering students. It is recommended that this combined procedure be employed wherever facilities permit.

For better results, and to insure greater uniformity, tuberculin testing should be done intradermally (Mantoux), using Purified Protein Derivative of tuberculin (P.P.D.) in two strengths. The first dose, prepared according to directions,

is 0.00002 milligrams. If no reaction occurs after 72 hours a second dose of 0.005 milligrams is given. Equally dependable results may be obtained if Old Tuberculin (O.T.) is used. The first dose, injected intradermally, is 0.1 milligram. When no reaction occurs after 72 hours a second dose of 1.0 milligram is given. Failure to react to the second dose of either P.P.D. or O.T. may be taken as evidence of freedom from tuberculous infection.

Programs Using X-ray Alone as a Screen

The main criterion for an excellent program was that all students were X-rayed annually. When this is done, most of the significant cases of tuberculosis will be found in a relatively short time.

Forty-seven colleges, distributed over 23 states, indicated that part or all of their X-ray program had been conducted by either the local tuberculosis association or one of the official health departments. One of the limitations of the X-ray is that it gives no certain proof either of tuberculous infection or tuberculous disease. Diagnosis may be made only after careful clinical study of a suspected case. Calcifications noted on chest films are not proof of previous tuberculous infection. Diagnoses have undoubtedly been ascribed to "healed childhood tuberculosis" when the true cause was *Histoplasma capsulatum*. One who reacts to tuberculin should have regular examinations, including chest X-ray, for evidence of active tuberculosis. Conversely, except in a few well-recognized instances, the non-reactor does not have tuberculosis.

Program Participation by Non-Students

Students come in daily contact with other members of the college community which includes all of the college staff, the administration, the faculty and other employees. Any one of these may have tuberculosis. Students would have added protection if all college employees were examined.

Student health services are in the best possible position to inform vast numbers of young people about tuberculosis, and must be prepared to meet this challenge.

Tuberculosis Among College Students, Seventeenth Annual Report of the Tuberculosis Committee, Chairman, Max L. Durfee, M.D., American Student Health Association, for the Academic Year, 1946-1947, The Journal-Lancet, November, 1948.

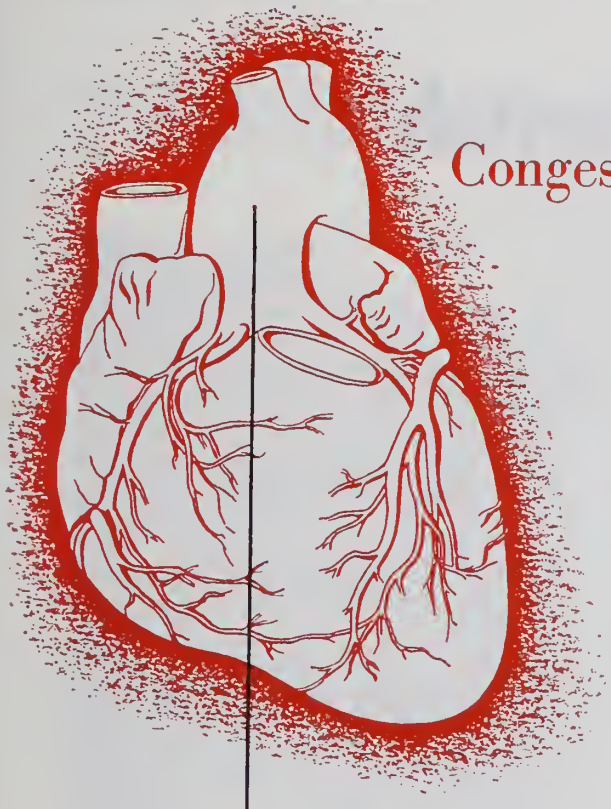
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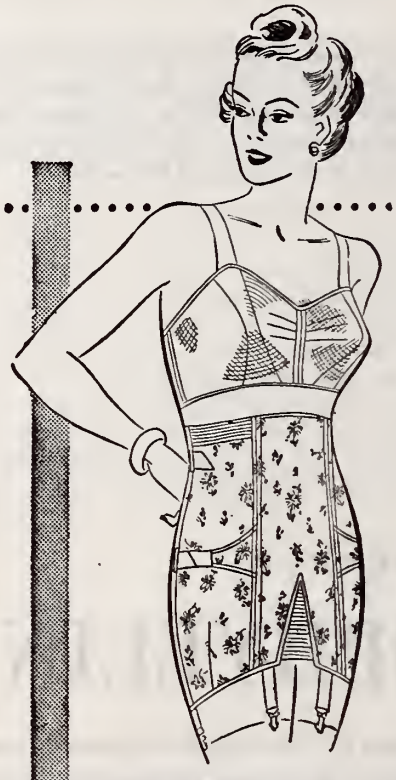
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SEARLE RESEARCH IN THE SERVICE OF MEDICINE

1. Howarth, S.; McMichael, J., and Sharpey-Schafer, E. P.: The Circulatory Action of Theophylline Ethylene Diamine, Clin. Sc. 6:125 (July 17) 1947.

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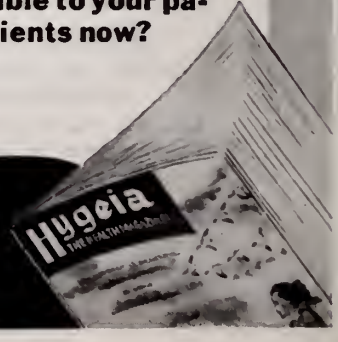
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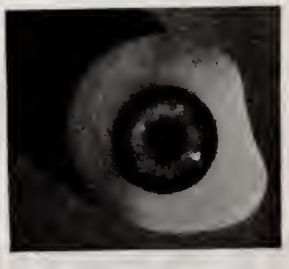
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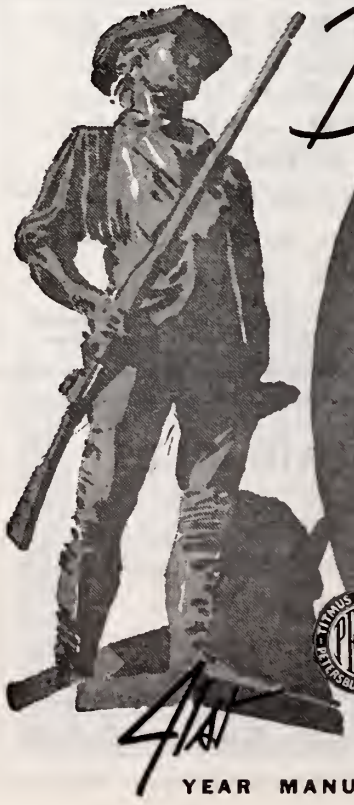
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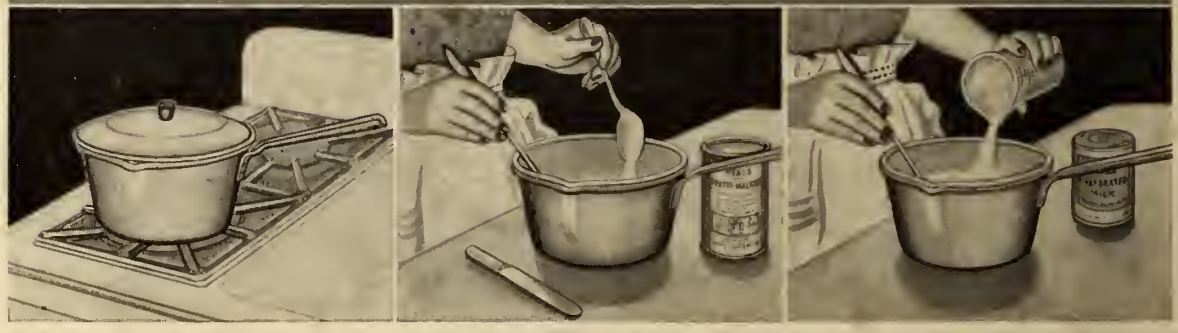


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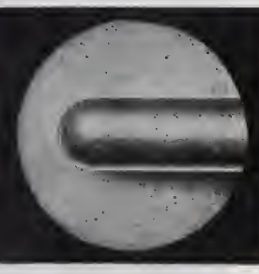
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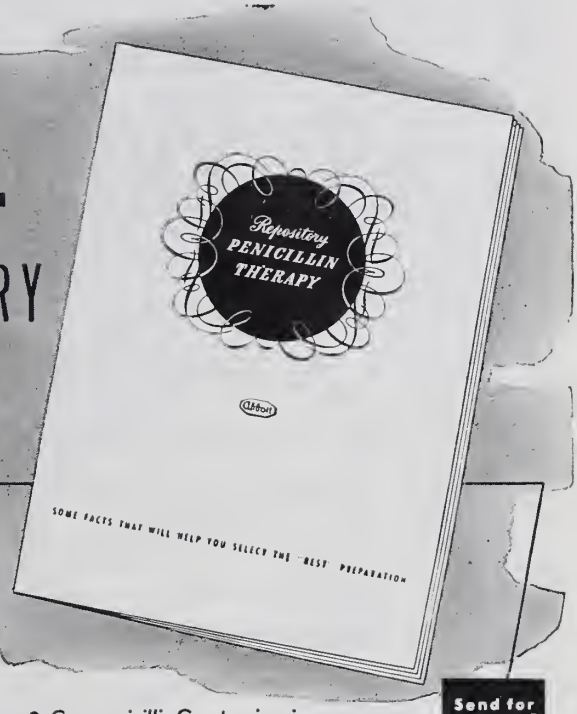
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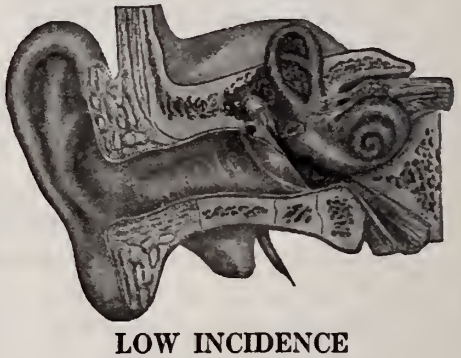
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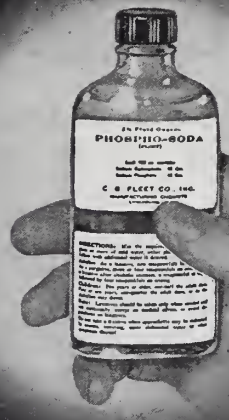
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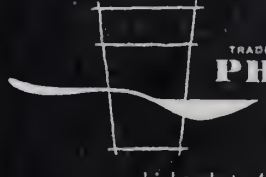


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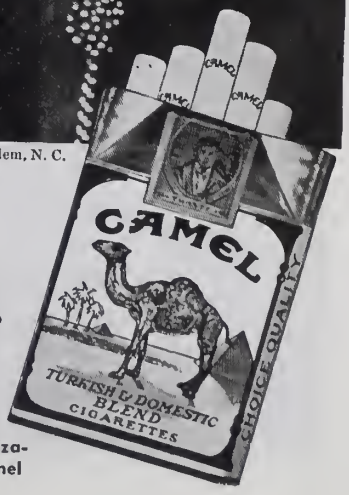
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SECRETARY





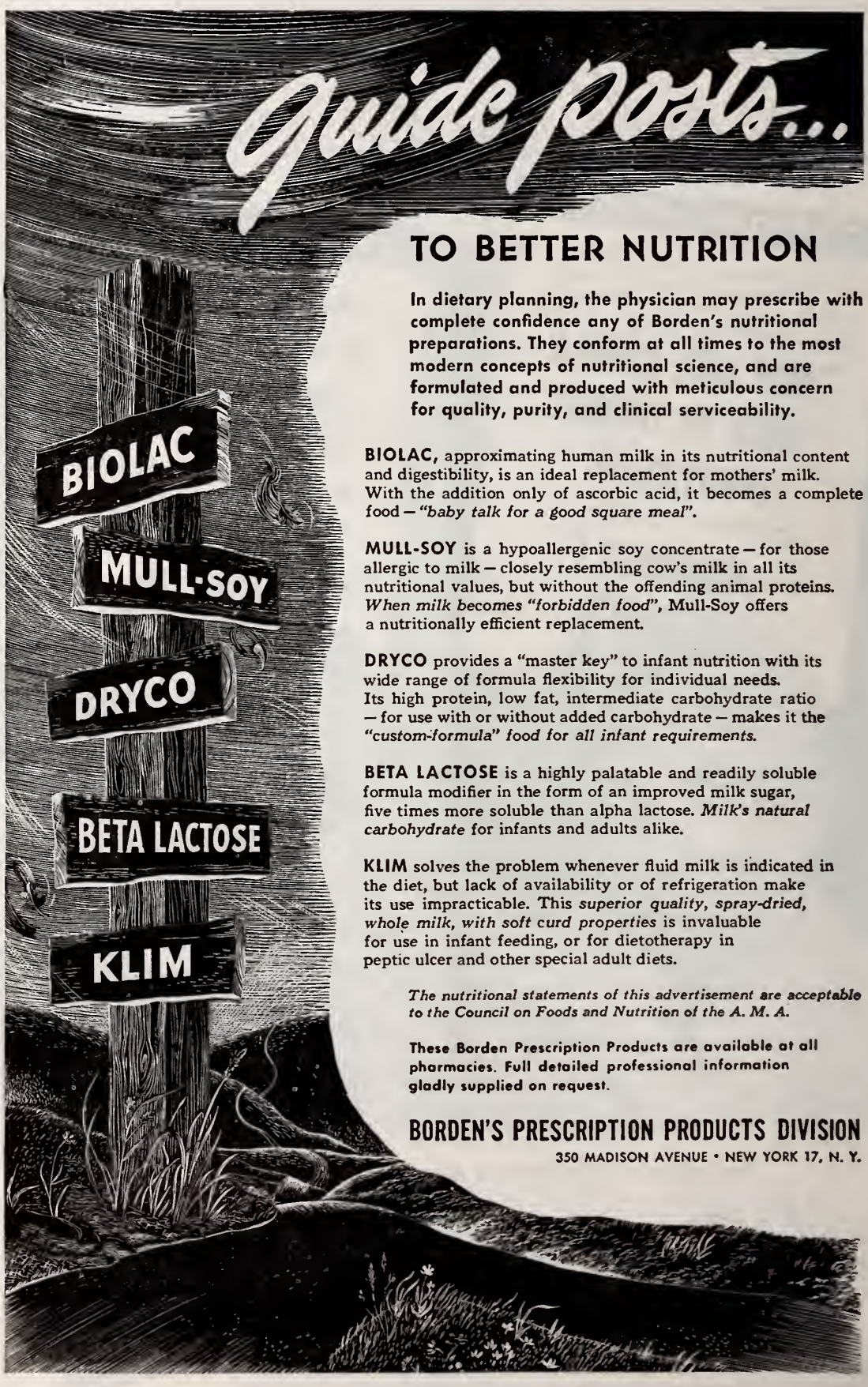
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Doctors smoke far pleasure, too! And when three leading independent research organizations asked 113,597 doctors what cigarette they smoked, the brand named most was Camel



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In dietary planning, the physician may prescribe with complete confidence any of Borden's nutritional preparations. They conform at all times to the most modern concepts of nutritional science, and are formulated and produced with meticulous concern for quality, purity, and clinical serviceability.

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MULL-SOY is a hypoallergenic soy concentrate — for those allergic to milk — closely resembling cow's milk in all its nutritional values, but without the offending animal proteins. *When milk becomes "forbidden food",* Mull-Soy offers a nutritionally efficient replacement.

DRYCO provides a "master key" to infant nutrition with its wide range of formula flexibility for individual needs. Its high protein, low fat, intermediate carbohydrate ratio — for use with or without added carbohydrate — makes it the *"custom-formula" food for all infant requirements.*

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KLIM solves the problem whenever fluid milk is indicated in the diet, but lack of availability or of refrigeration make its use impracticable. This *superior quality, spray-dried, whole milk, with soft curd properties* is invaluable for use in infant feeding, or for dietotherapy in peptic ulcer and other special adult diets.

The nutritional statements of this advertisement are acceptable to the Council on Foods and Nutrition of the A. M. A.

These Borden Prescription Products are available at all pharmacies. Full detailed professional information gladly supplied on request.

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350 MADISON AVENUE • NEW YORK 17, N. Y.



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Dishes, dustpans, a thousand details...the three "d's" of household drudgery...are challenge enough at any age, but a stack of dinner dishes can look mountain high to the woman in the menopause. This is a disquieting aspect of the daily life of such patients that physicians can bring into proper perspective with **"Premarin."**

"Premarin" *therapy, it has been found, has in it a certain "plus" that produces a sense of well-being in most women.* **"Premarin"** *quickly relieves the symptoms of the menopause. It is orally active, and is rapidly absorbed from the intestine.*

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While sodium estrone sulfate is the principal estrogen in **"Premarin,"** *other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water soluble conjugates.*

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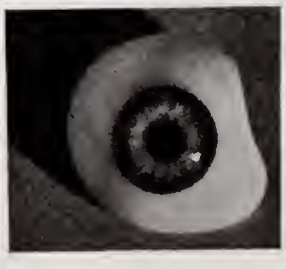
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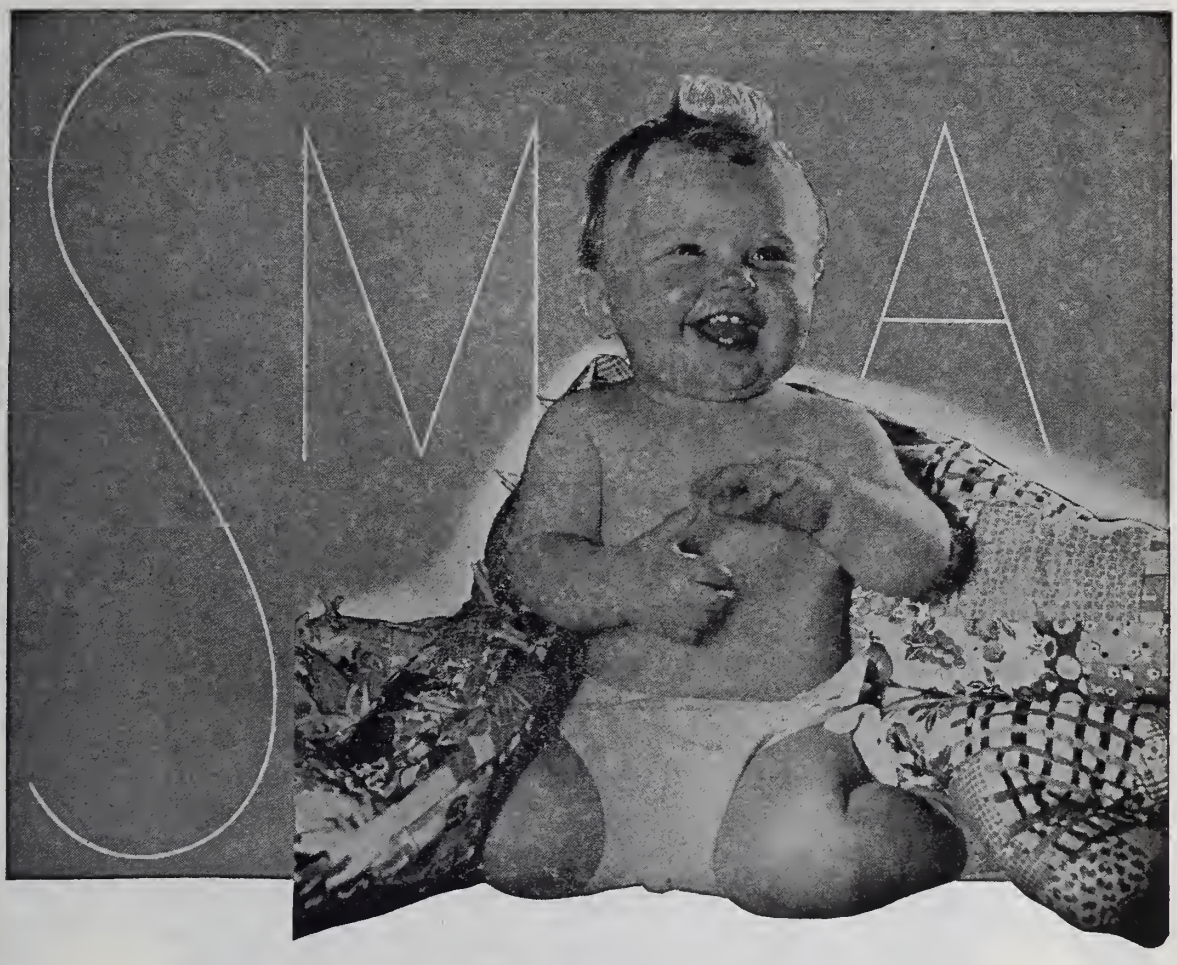


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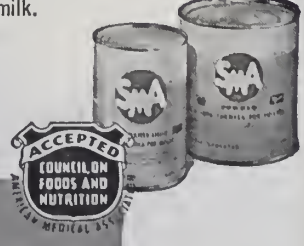
vitamin content (including **vitamin C**) equals or exceeds minimum daily requirements . . .

minerals compare favorably with those of human milk . . .

fat—the iodine number (index of **unsaturated fatty acids**) for S-M-A fat is standardized at the top of the range found in human milk.

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★ *Epileptic Men of Genius* ★

The famous English poet, Algernon Charles Swinburne, who began to show signs of epilepsy at the age of 25, is a prominent example that despite epilepsy a man may develop to true greatness.

Comparative studies have shown that in some cases better control of grand mal as well as petit mal seizures can be obtained with Mebaral than with corresponding doses of other antiepileptic drugs. Mebaral produces tranquillity with little or no drowsiness. It is particularly desirable not only in epilepsy but also in the management of anxiety states and other neuroses. The fact that Mebaral is almost tasteless simplifies its administration to children. Average dose for children ½ to 3 grains, adults 3 to 6 grains daily. Tablets ½, 1½ and 3 grains.

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the HYPERTENSIVE PATIENT

WITH

Manrucen Tablets

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- **Elimination of vitamin C hypovitaminosis**
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Mannitol hexanitrate	30 mg.	½ gr.
Phenobarbital	15 mg.	¼ gr.
Rutin	20 mg.	1/3 gr.
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Write for detailed clinical literature

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The Cardiologist~ is assured of

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Being the powdered leaves made into
physiologically tested pills,
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D14



sleep... *measured*

by the patient's need

Palatable Elixir Alurate, with its flexible, easily adjusted dosage, enables you to induce sleep in nervous, tense patients according to their individual needs. In therapeutic doses, it does not alter heart rate, respiration or other vital functions. In most cases, sleep of normal duration and depth is obtained. Easily administered, pleasant-tasting, freely miscible with liquids, each teaspoonful of Elixir Alurate contains ½ gr of allyl-isopropyl barbituric acid. Bottles of 6 oz, 1 pt, and 1 gal.

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FROM SECRETARY OF DEFENSE LOUIS JOHNSON—

AN URGENT APPEAL TO YOUNG DOCTORS!



Your personal help is needed to avert a serious threat to our national security!

By the end of July of this year we will have lost almost one-third of the physicians and dentists now serving with our Armed Forces. Without an increased inflow of such personnel, the shortage will assume even more dangerous proportions by December of this year.

These losses are due to normal expiration of terms of service. The professional men who are leaving the Armed Forces during this critical period are doing so because they have fulfilled their duty-obligations and have earned the right to return to civilian practice.

Without sufficient replacements for these losses, we cannot continue to provide adequate medical and dental care for the almost 1,700,000 service men and women who are the backbone of our nation's defense.

Normal procurement channels will not provide sufficient replacements!

To alleviate this critical, impending shortage of professional manpower in the three services, I am urging all physicians and dentists who were trained under wartime A. S. T. P. and V-12 programs under government auspices or who were deferred in order to complete their training at personal expense, *and who saw no active service,* to volunteer for a two-year tour of active duty, at once!

We have written personally to more than 10,000 of you in the past weeks urging such action. The response to this appeal has not been encouraging, and our Armed Forces move rapidly toward a professional manpower crisis!

Many responses have been negative, but worse—a great number of doctors have not replied. It is urgent that we hear from you immediately!

We feel certain that you recognize an obligation to your fellow men as well as to your profession in this matter. We are confident that you will fulfill that obligation in the spirit of public service that is a tradition with the physician and dentist.

There is much to be said for a tour of duty with any of the Armed Forces. You will work and train with leading men of your professions. You will have access to abundant clinical material; have the best medical and dental facilities in which to practice. You will expand your whole concept of life through travel and practice in foreign lands. In many ways, a tour of service will be invaluable to you in later professional life!

Volunteer now for active duty. You are urged to contact the Office of Secretary of Defense by collect wire immediately, signifying your acceptance and date of availability. Your services are badly needed. Will you offer them?

Louis Johnson

MEAT...
And This Protein Era

"Today we are in the protein era."* This terse but meaningful statement, made by an outstanding authority in a recent review on the progress of nutrition, reflects an accomplishment of utmost significance.

This résumé of modern nutrition concepts shows convincingly that the recognition of the vital role of protein in health and disease ranks among the great advances of medicine.

The therapeutic use of a high protein dietary has revolutionized the prognostic outlook in many hepatic diseases formerly considered resistant to treatment.

The use of high protein dietaries has resulted in a gratifying reduction of surgical morbidity and mortality, made possible by systematic presurgical nutritional build-up of the patient. Through this same approach, wound healing and general recovery are greatly promoted.

In nephritis and nephrosis, at one time considered absolute contraindications for animal protein in the dietary, the use of protein in liberal amounts can significantly reduce mortality and decidedly improve the clinical condition.

The benefits derived from high-protein nutrition in pregnancy and lactation are diversified and far-reaching, embracing both mother and offspring. For this reason, a generous extra serving of meat, given daily as a routine measure, has been strongly recommended as a means of improving the health of mother and child.

Meat is rightfully regarded as an outstanding protein source. It is notably rich in protein. The protein of meat is biologically complete, capable of satisfying all protein needs of the body from childhood to old age. And, particularly important in disease, the excellent digestibility of meat gives virtual assurance that its protein and other valuable nutrients become available for utilization.

*McLester, J. S.: Protein Comes Into Its Own, J.A.M.A. *139*:897 (April 2) 1949.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute

Main Office, Chicago...Members Throughout the United States



The psychosomatic price

The tensions of modern living demand a price that is frequently gastrointestinal injury, occasionally peptic ulcer. The prevention and cure of peptic ulcer embrace the application of hygienic, psychiatric, dietary, and therapeutic techniques to this problem.

Logically, therapy should include the administration of materials which will tend to reduce the acidity of the gastric content without producing alkalosis or other undesirable effects. Coincidentally, a demulcent effect should be sought to coat the ulcerated surfaces and protect them from crosion. *Lederle* research has found that a cascin, low in sodium, high in calcium, in appropriate form, when given by mouth will accomplish these ends and provide the patient with prompt symptomatic rclief.

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The knee-joint cross-section shows that Hanger Artificial Limbs are not complicated mechanisms, not loosely-fitted pieces, but a few expertly-machined parts carefully assembled by experts. The simple construction making possible the efficient operation of Hanger Limbs is the result of long study and research. It is dependent on precision-made parts properly assembled. Hanger craftsmen are carefully selected and trained for this important work. Each Hanger Limb therefore conforms to specifications developed by years of experience.

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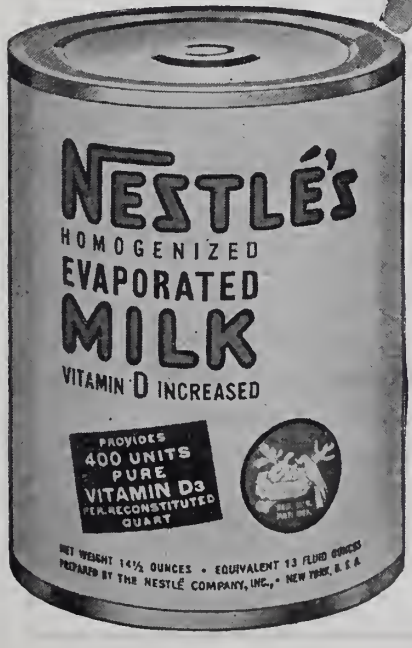
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many things to consider



The choice of an oral estrogen depends on many factors—potency, dosage, safety and cost. On the basis of cost alone, a sound choice is difficult. An oral estrogen that appears to "cost less" may be wanting in potency; another may provoke troublesome side actions. On the basis of potency, however, the differences among oral estrogens are enlightening.

ESTINYL

(brand of ethinyl estradiol)

is by far the most potent oral estrogen

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This extraordinary clinical activity has practical importance. It is characterized by virtual freedom from untoward reactions. Such low dosage obviously results in lower cost.

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ESTINYL Tablets, 0.02 or 0.05 mg., in bottles of 100, 250 and 1000.

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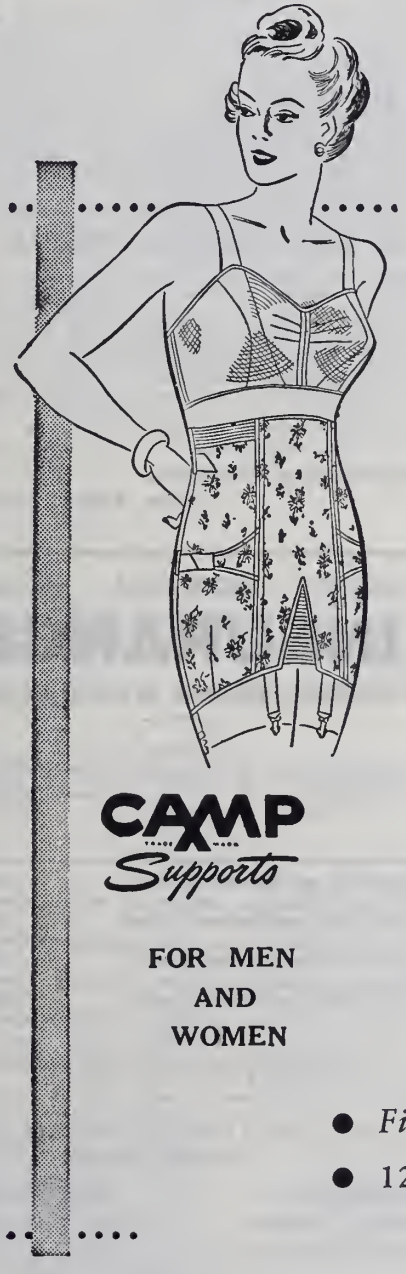
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THE PIONEER POST-GRADUATE MEDICAL INSTITUTION IN AMERICA

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A combined surgical course comprising general surgery, traumatic surgery, abdominal surgery, gastroenterology, proctology, gynecological surgery, urological surgery. Attendance at lectures, witnessing operations, examination of patients pre-operatively and post-operatively and follow-up in the wards post-operatively. Pathology, radiology, physical therapy, anesthesia. Cadaver demonstrations in surgical anatomy, thoracic surgery, proctology, orthopedics. Operative surgery and operative gynecology on the cadaver.

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- Surgery of Colon and Rectum, One Week, starting September 12, October 10.
- Esophageal Surgery, One Week, starting October 10.
- Thoracic Surgery, One Week, starting October 3.
- Breast and Thyroid Surgery, One Week, starting October 10.
- Fractures and Traumatic Surgery, Two Weeks, starting October 3.

GYNECOLOGY—Intensive Course, Two Weeks, starting September 26, October 24—Vaginal Approach to Pelvic Surgery, One Week, starting September 19, November 7.

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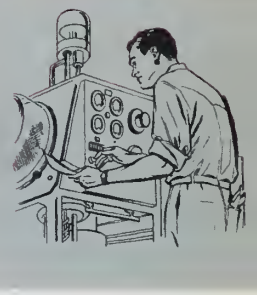
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The chief effect of papaverine is relaxation of all smooth muscle without interference with normal contractions. Many conditions associated with smooth-muscle spasm have been benefited by papaverine therapy. Prescribe Papaverine Hydrochloride, Lilly, for relief of vascular spasm associated with coronary occlusion, angina pectoris, and peripheral and pulmonary embolism; for bronchial spasm and accompanying allergic conditions, such as asthma; and for visceral spasm, as in ureteral, biliary, and gastro-intestinal colic. Tablets and ampoules are available on prescription at all retail and hospital pharmacies.



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HEARTS THAT NEED YOUR HELP AND OURS





The incidence of heart disease continues to increase as the average span of life is lengthened. The problem is being attacked on several fronts. Delicate instruments of diagnosis, better preventive measures, and improved surgical techniques have been devised. Knowledge of the physiology of the heart and vascular system is increasing. Useful new drugs have been introduced, and more are being developed.

Specialists in this field at the Lilly Research Laboratories are placing major stress upon the medical approach to this problem. With crystalline digitoxin and newer diuretic drugs, many victims of advanced heart failure, who formerly would have been considered beyond treatment, are now relieved of symptoms. Papaverine hydrochloride makes possible the symptomatic relief of coronary occlusion, angina pectoris, and certain types of vasospastic disease. Even though the fundamental disease condition remains, life may be prolonged and made more useful and pleasant.

Lilly

LILLY SPECIALISTS SERVE THE MEDICAL PROFESSION

Volume 46
Number 7

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

Published Monthly Since September, 1904

Whole Number of Issues 539

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THE CHILD HEALTH STUDY

Elsewhere in this issue we publish a compact summary of the New Jersey part of the Child Health Survey. Much credit is due to Dr. Murray, the state study director, and to the 3000 members of The Medical Society of New Jersey who cooperated in the project. It is noted that the Study uncovered several weaknesses in the pattern of child care in New Jersey. It will come as a shock to most of us to find that we ranked lowest among the 48 states with respect to facilities for the care of handicapped children. While some of this may represent a statistical artifact, the record in this respect is certainly nothing to be proud of.

General practitioners treat six children for every one treated by a pediatrician. It is neither likely nor desirable that this ratio be reversed. It seems, therefore, that better undergraduate and graduate training of family doctors in pediatrics is a desideratum. Since we have no medical school in our state, the accomplishment of such training would appear to be a proper function of our medical societies.

Other weaknesses highlighted by the survey include: inadequate facilities for poliomyelitis, a deficit in the number of physicians in our rural counties, insufficient hospital beds for children, and a pressing need for more mental hygiene installations.

Although the government at several levels materially aided in the prosecution of the survey it was the private practitioner speaking through the American Academy of Pediatrics (and further represented in the thousands of participating physicians) who furnished the in-

spiration, the leadership and the material for this project. This in itself is a heartwarming sign. The defects in child care throughout the country, although minimal by comparison with the many splendid accomplishments of American pediatrics will, nonetheless, be used as evidence of failure in American medicine. It therefore behooves us to recognize honestly the few deficiencies exposed by this survey and to institute corrective action. Americans will go to any length to preserve their most precious assets— their children—and if the medical profession does not meet these needs, the people will turn to government for help. The moral seems obvious and need hardly be spelled out more clearly.

JOURNAL CLUBS

While the doctor is always promising himself to start systematically reading the medical literature, few adhere to any such program with regularity. However, when he knows that a week from Thursday, he will be sitting down with his colleagues to present abstracts from a specific periodical, he will force himself to examine the journal rather than come unprepared. Journal clubs follow one of two patterns: the multi-specialty meeting, or the strictly one-specialty meeting.

In the first type, membership is composed of one man in each major specialty plus one general practitioner. A specialist presents an abstract of a paper, digested from an article of interest to general practitioners or to other specialists. If abstracts are rigidly limited to five hundred words (reading time 5 to 7 minutes) it is possible to cover seven or eight specialties an evening with ample time for comment. Or the club might prefer a more thorough treatment of each paper so that only one or two specialties would be discussed at each session. The specialist determines which paper of which journal to abstract.

In the more specialized type of club, all members belong to the same field of medicine or surgery. The "conductor" assigns to each participant one journal in the specialty.

Procedure consists of reading of the abstract, reader's own comments on the paper, questions and discussion by the other members. Having so recently covered the literature of the subject, the reader sometimes plays the role of temporary expert and answers all questions raised.

In forming a journal club, the organizers select a socially congenial group, an evening when no other meetings compete, a place or series of places where doctors may meet in comfort and relaxation and a source for the food, smokes and drinks which help make an evening a pleasant one.

Having no medical school in New Jersey we cannot participate directly in the professional growth which such a school always affords. We must, therefore, improvise both our own graduate educational technics and our own forums for the discussion of advanced medical problems. Formal graduate courses require rather elaborate organizational machinery. The increasingly popular clinical pathological conference requires the active participation of a well organized hospital group. The journal club, however, is a helpful and stimulating medium for professional development which is available whenever a few physicians with the will to do so can meet and arrange for this simply organized and intellectually stimulating project.

THE NEW JERSEY STUDY OF CHILD HEALTH SERVICES

Study made by the New Jersey Fellows of the American Academy of Pediatrics in conjunction with The Medical Society of New Jersey and the New Jersey State Department of Health.

HARROLD A. MURRAY, M.D., State Study Director

This is part of the nationwide study of child health services accomplished by the American Academy of Pediatrics with the cooperation of the United States Children's Bureau and the United States Public Health Service. The national committee for the Study was headed by Dr. Warren R. Sisson. Other members of the national committee were: Doctors Allan M. Butler, Harvey F. Garrison, Henry F. Helmholz, Lee Forrest Hill, Joseph I. Linde, Arthur H. London, Jr., Joseph S. Wall and James L. Wilson.

The national advisory committee included Dr. Joseph S. Wall for the American Academy of Pediatrics, Dr. Martha M. Eliot for the U. S. Children's Bureau and Dr. George St. John Perrott for the U. S. Public Health Service.

The national study director was John P. Hubbard, M.D.

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Reprints of this Study may be obtained by writing
to Dr. Harrold A. Murray
624 Mt. Prospect Avenue, Newark 4, N. J.

FOREWORD

The future of the world—its peace and prosperity—rests largely in the hands of the United States. The future of the United States—its progress and leadership—rests largely in the hands of today's children.

To subscribe to these premises is to subscribe to the belief that, from an objective view, the American child is the most important person in our world. Subjectively, of course, every American parent knows that.

With concepts like these in mind, the members of the American Pediatric Society in 1944 declared that physicians should assume greater responsibility and initiative in providing the best possible medical care for all children.

The idea was put into the hands of a committee representing the American Academy of Pediatrics, the American Pediatric Society and the Maternal and Child Health Advisory Committee of the United States Children's Bureau. That committee returned a report which fixed this objective:

"To make available to all mothers and children in the United States all essential preventive, diagnostic and curative medical services of high quality which, used in cooperation with other services for children, will make this country an ideal place for children to grow into responsible citizens."

First step toward that goal, the committee added, must be a survey to find out what services there were, how nearly they met the objective, and what must be added to make them meet it. The committee suggested that the American Academy of Pediatrics ask the United States Public Health Service and the Children's Bureau to join it in undertaking such a survey. The Academy unanimously agreed. The two government agencies agreed. Thus began, in 1945, the most ambitious and sweeping survey ever undertaken under the direct supervision of a group of private medical practitioners. The Study of Child Health Services reached into every corner of the nation to report facts and figures which could have been obtained under no other auspices.

The data went to the central office of the Study in Washington where the executive staff included statisticians and technical experts from government agencies experienced in the analysis and interpretation of the mass of information being collected. These data for the nation as a whole have been summarized and reported under the title "Child Health Services and Pediatric Education".

The data in each state were gathered under the direction of the Academy's state chairman. The information from each state was much too detailed to be included in the national report, but these detailed data were of great importance for local planning. So it was decided that, in addition to the national report, those who made the state studies should prepare individual state reports and make use of this detailed information. The combination forms a monumental mosaic, the state reports illuminating the findings of the national Study.

This is the report of the New Jersey Study of Child Health Services conducted through the New Jersey Fellows of the American Academy of Pediatrics in conjunction with The Medical Society of New Jersey and the New Jersey State Department of Health. It concerns itself almost entirely with what we found in the field of child health care and facilities right here in our own state.

It is offered with the devout hope that its presentation of the facts we found and the conclusions we drew will serve in some measure to help make New Jersey an "ideal place for children to grow into responsible citizens."

HARROLD A. MURRAY, M.D.,
State Director.

ACKNOWLEDGMENT

This Study and report were made possible by the wholehearted cooperation of hundreds of people—physicians, hospital administrators, public health officials, heads of voluntary agencies and many others. To all of them goes the gratitude of those who have worked to collect, tabulate, and interpret the facts. The job would have been impossible without their help.

Special appreciation is expressed for the vast clerical help given by the staff of The Medical Society of New Jersey and for financial assistance provided by the following:

New Jersey State Department of Health.

New Jersey county chapters of the National Foundation for Infantile Paralysis.

Baby Products Division of Johnson & Johnson.

Hoffmann-La Roche, Inc.

White Laboratories, Inc.

The State Commissioner of Health has agreed to place on file at the Trenton office of the State Department of Health the original Study report schedules and tabulations. They may be seen there by those desiring greater detail than this report

affords. Reports on the activities of individual physicians, however, will not be included. They have been destroyed in conformity with an agreement made when they were received.

INTRODUCTION

The New Jersey Study of Child Health Services went for information directly to every doctor, every hospital, every health department and every agency dealing with medical care of New Jersey children, both sick and well. Data were gathered by both mail questionnaires and personal interviews.

Reports on child visits were obtained from 63 per cent of the active physicians in the state (59 per cent of general practitioners, 79 per cent of pediatricians, and 69 per cent of other specialists). Practically all of the hospitals and community health services in the state cooperated. In arriving at figures for total child care in New Jersey, the levels established on reports obtained were projected to cover the entire group. Careful statistical adjustments were made for variations inherent in the physicians' reports covering different days of the week and seasons of the year. The report period covered the years 1946 and 1947.

Data on pediatricians were taken on a full month of activity; on other physicians for one day, with every day of the week proportionately included. Every season was covered. Reports from hospitals, official and voluntary health agencies were on a twelve-month basis.

The detailed county by county maps and statistics in this report—except those concerning distribution of physicians—are based on actual reports to the Study. They are not projected to cover institutions and agencies which did not submit reports. Statistical estimates were used to supply some figures which were unobtainable from reporting institutions and agencies.

The detailed presentations on hospitals, well-child conferences, school health services, other community health services, and physician training are not 100 per cent complete. They do, however, represent a high-proportion well-distributed cross section. They are presented to depict the patterns revealed by the Study rather than the precise quantitative situation.

To permit comparisons throughout the country, the national staff of the Study defined counties in five categories: (a) Greater Metropolitan, (b) Lesser Metropolitan, (c) Adjacent, (d) Isolated Semi-Rural, and (e) Isolated Rural. These classifications were based on population density, and proximity to heavily-populated areas. Only the first three categories apply to New Jersey.

DEFINITIONS

Greater Metropolitan counties are those comprising the metropolitan districts of the twelve largest cities in the nation. Thus, Camden County, being within Philadelphia's metropolitan district, and Bergen County, lying within New York's district, are both classed as "Greater Metropolitan Counties".

Lesser Metropolitan counties are those which (not classified above) contain municipalities of 50,000 or more. Atlantic and Mercer are our state's "Lesser Metropolitan counties".

Adjacent counties are those which (not otherwise classified) geographically adjoin counties in either metropolitan category. Thus, Sussex, normally thought of as a "rural" county, is here classed as "adjacent" because it adjoins the metropolitan Passaic county.

The two "isolated" groups are composed of counties not included in the other three categories. The *Isolated Semi-Rural* counties are those with an incorporated place of 2500 or more within their boundaries. The *Isolated Rural* are those with no incorporated community that large.

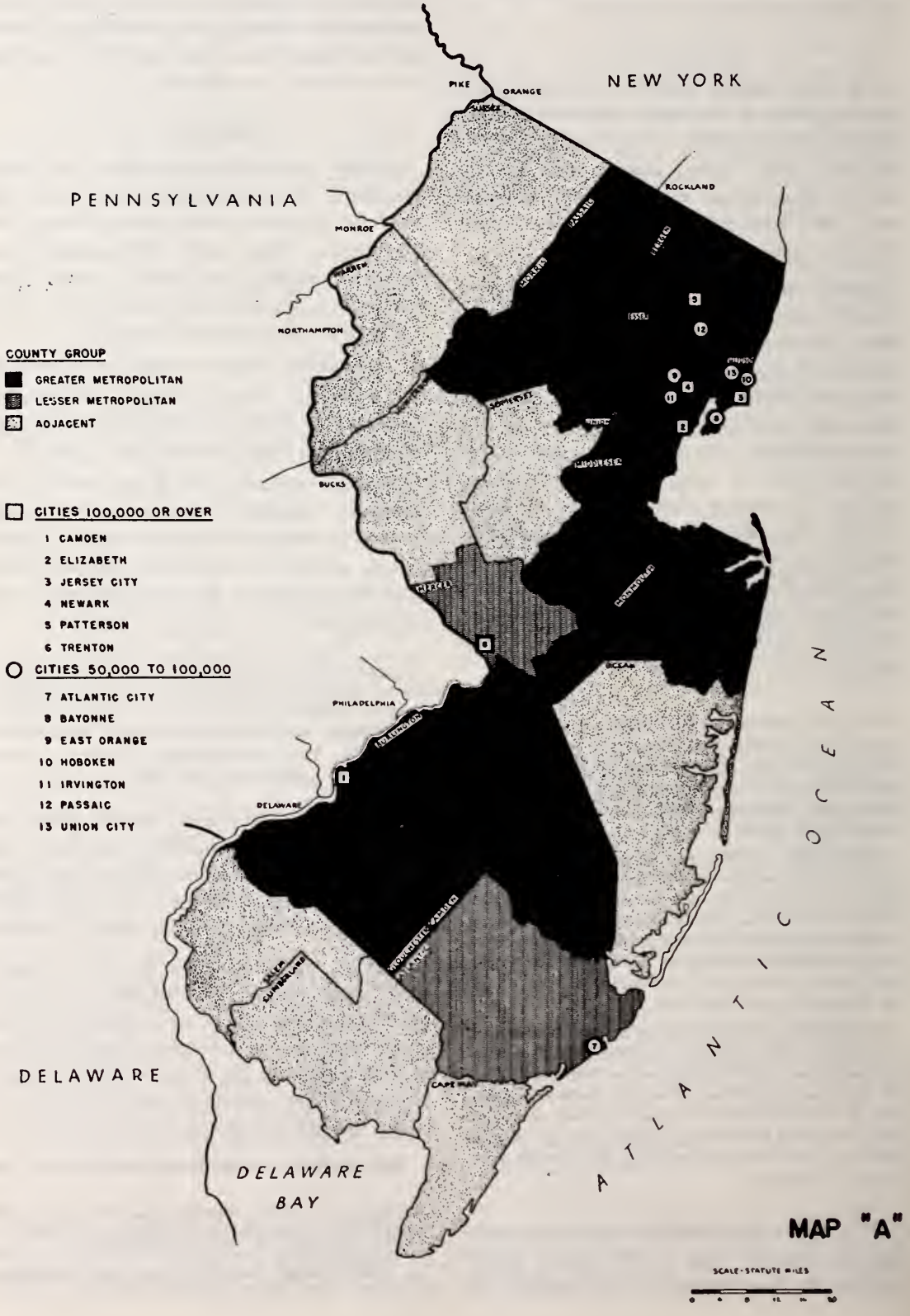
New Jersey has eleven Greater Metropolitan,[1] two Lesser Metropolitan,[2] and eight Adjacent counties.[3] There are no "isolated" counties. In this report the first two groups generally are combined as Metropolitan counties.

It is the purpose of this report to compare child health services by area within the state. Detailed comparisons between New Jersey and other states are, in general, outside the scope of and useless to the purpose of this report. However some mention of New Jersey's place in the national picture may be of interest.

New Jersey's small area, good roads and

1. Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Middlesex, Monmouth, Morris, Passaic and Union counties are thus classed as "Greater Metropolitan".
2. Atlantic and Mercer counties.
3. The "adjacent" counties are Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren.

COUNTY GROUPS IN NEW JERSEY



MAP "A"

transportation facilities, comparatively dense population and high per capita income all tend to create an environment conducive to better child health services than exist in some less favored states.

Study results and other statistics show New Jersey standing thus in the roster of states in some pertinent characteristics:

Eighth in per capita income (1944-46).

Fifth in infant mortality (1946).

Fourth in proportion of children under medical care on a typical day.

Fifth in ratio of all physicians to number of children.

Eighth in ratio of pediatricians to number of children.

Fifth in ratio of child visits per day by all physicians.

Fourteenth in ratio of general hospital beds to number of children.

Twenty-ninth in ratio of general admissions to number of children.

Twelfth in ratio of hospital beds reserved for children.

Twelfth in proportion of births occurring in hospitals (1946).

Eleventh in days of hospital care given newborn infants.

Second in proportion of child admissions to hospitals having Study-listed desirable characteristics.

Eighteenth in proportion of child visits to outpatient clinics of general hospitals.

Seventh in proportion of child in-patient days of care at special hospitals.

Sixth in proportion of children under five attending well-child conferences.

Second in proportion of visits to well-child conferences by children under five.

Fifth in proportion of children attending mental hygiene clinics.

Twelfth in proportion of child visits to mental hygiene clinics.

Forty-eighth in proportion of patients and visits to clinics for physically handicapped children.

Fourth in ratio of public health nurses to number of children.

Third in proportion of pre-school children under health supervision.

Third in proportion of dental clinic hours to number of children.

PRACTITIONERS AND CHILDREN

Though there are no generally accepted standards for the best ratio between doctors and children for maintenance of best child health services, the Study indicated that New Jersey needed many more doctors. In 1946, our state had 4180 physicians in private practice. Estimated number of children (under 15 years of age as of July 1, 1945) was 924,587, which gives a ratio of one physician for each 221 children.

The 1940 census showed that in New Jersey 21 per cent of the population was under 15. By extension of a generally accepted standard for best medical care for the population at large a derivative standard for children can be obtained. One doctor to 750 people is an accepted ratio. Extending that to pertain to New Jersey children, gives *a desired ratio of one doctor to 157 children.* Only one county in the state achieved that. That was Essex. See the encircled numerals in Map 1.

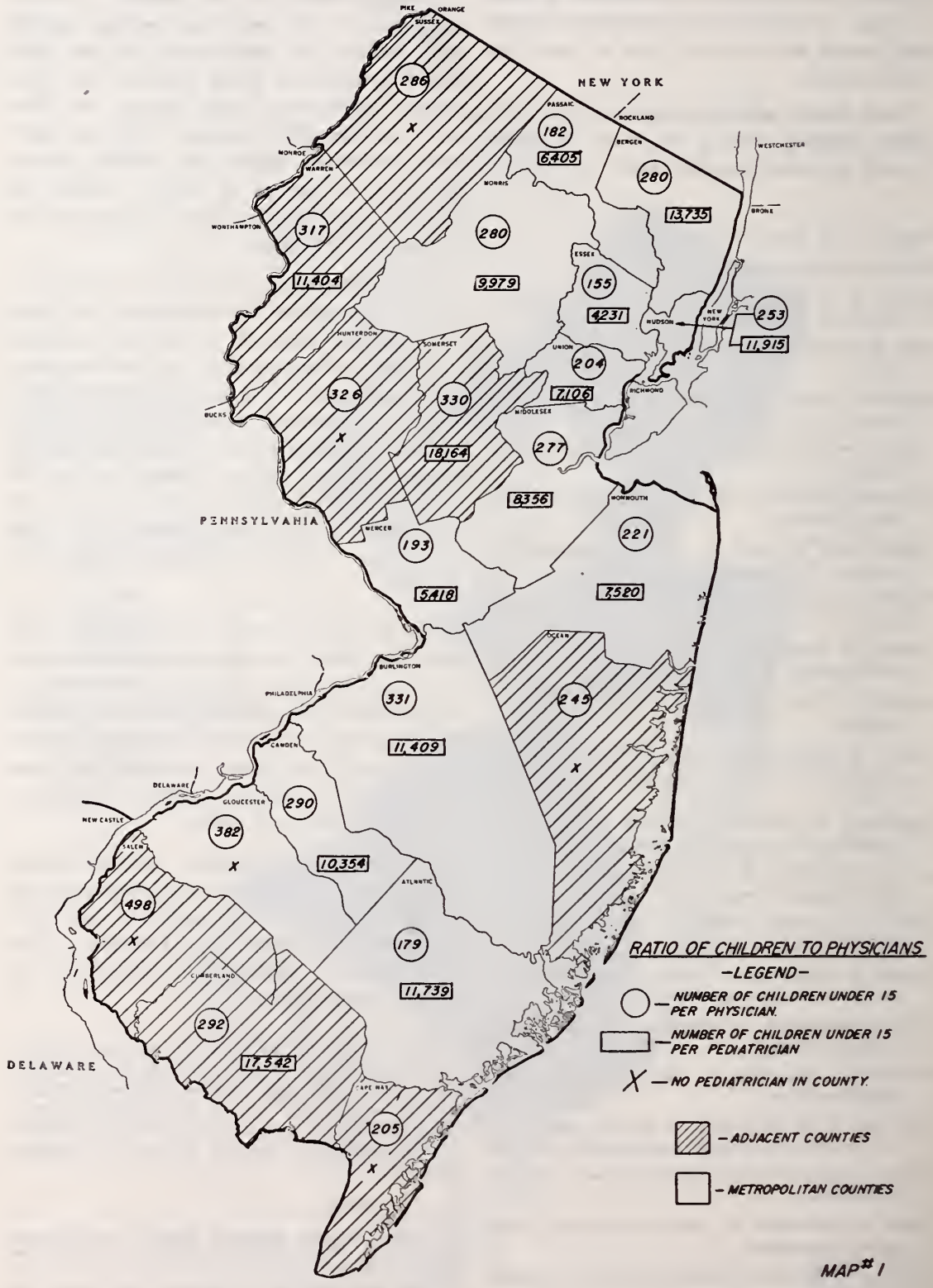
On the basis of the same derivative standard, New Jersey would need about 5900 physicians, and therefore was short about 1700, or 29 per cent of the desirable ratio. This picture, however, undoubtedly was affected by the fact that not all New Jersey physicians had been released from wartime military mobilization when the Study was made.

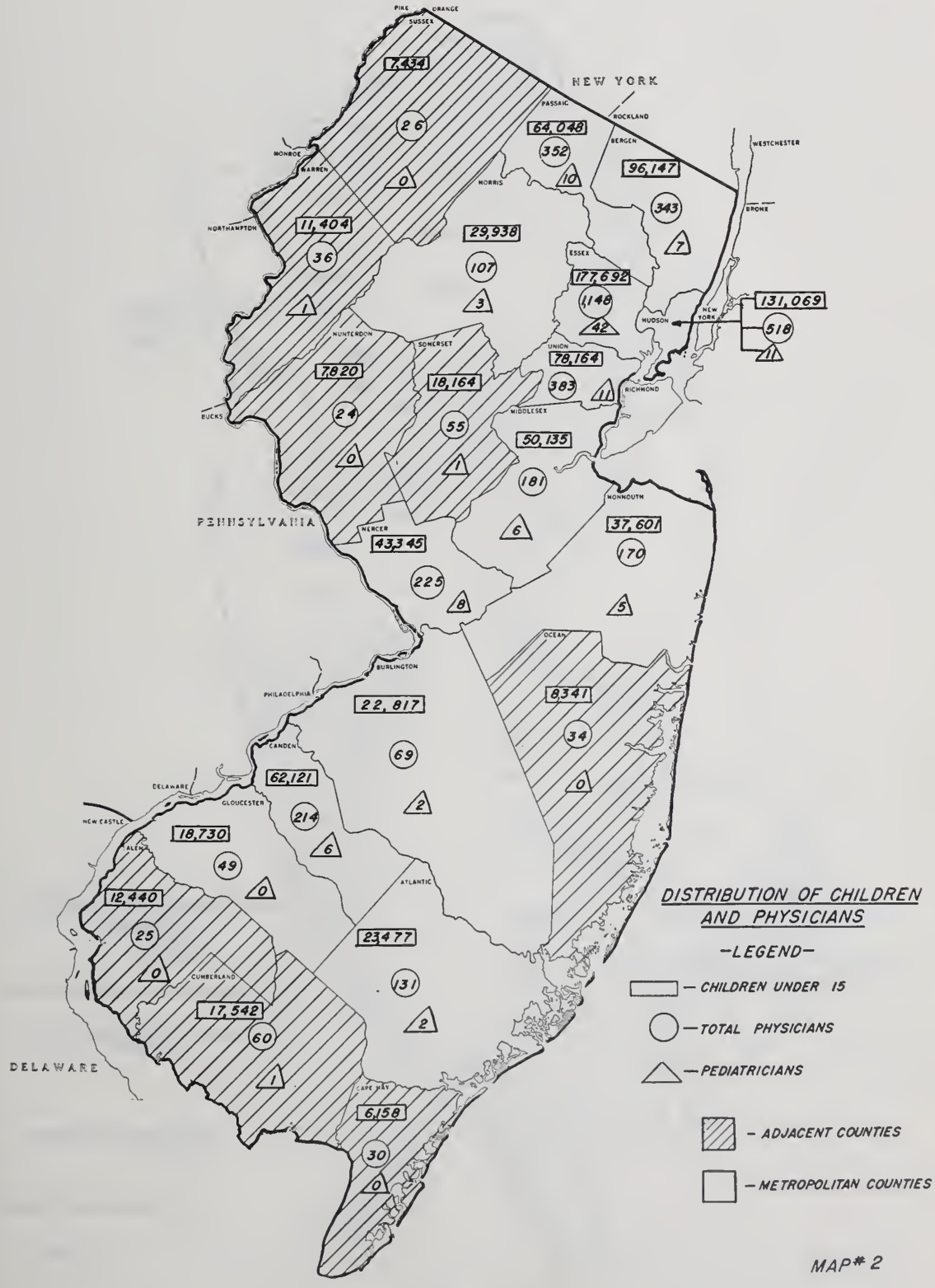
Distribution of doctors in the state showed Essex County the only area adequately supplied according to this yardstick. The ratio there was one doctor to 155 children. The other extreme was Salem County with one doctor to 498 children.

The 13 Metropolitan counties* contained 835,284 children under 15, or 90.3 per cent of the children in the state. The same counties contained 3890 physicians, or 93.1 per cent of the state total. This left 290 or 6.9 per cent of the doctors, and 89,303 or 9.7 per cent of the children in the eight Adjacent counties.†

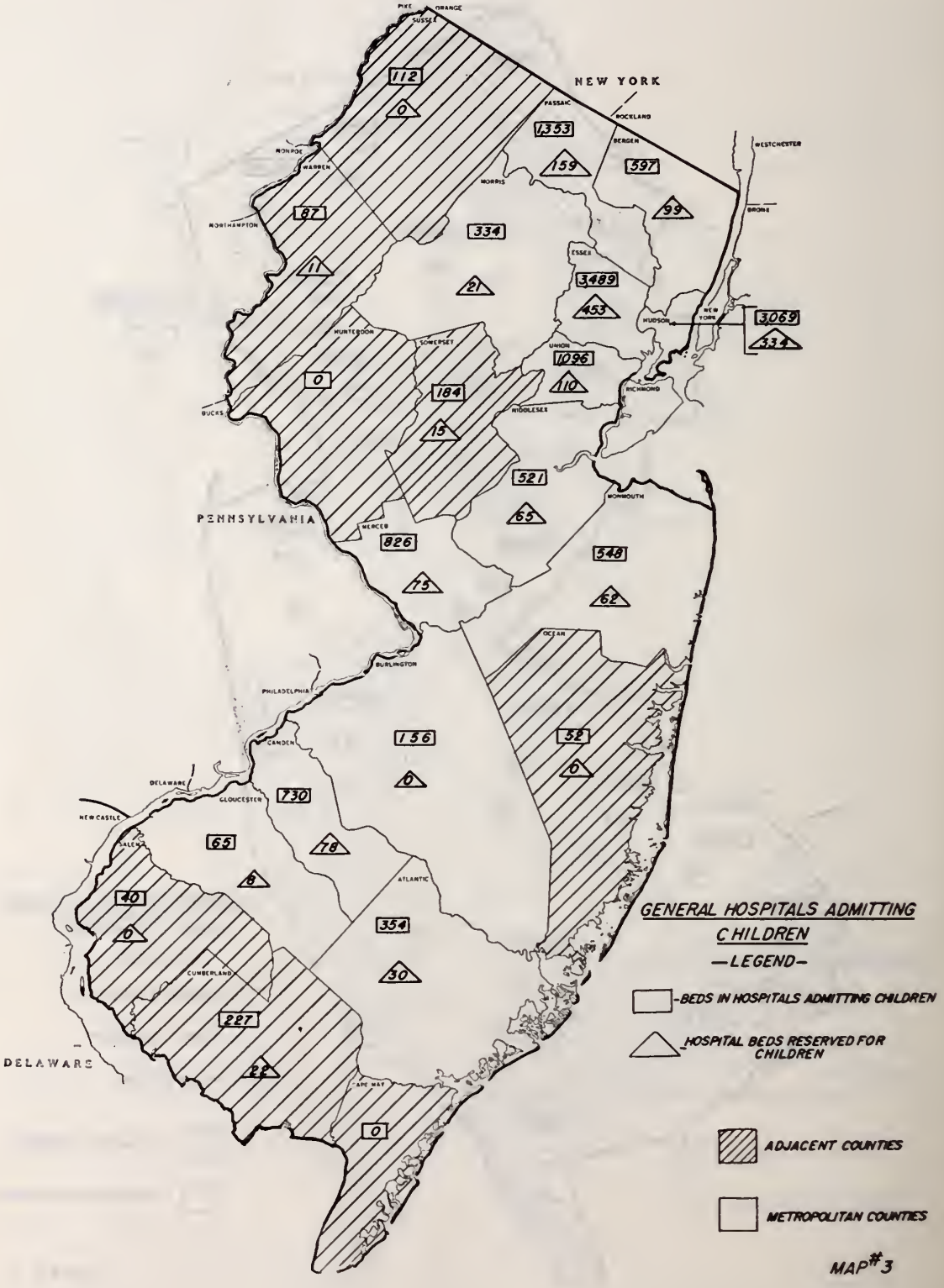
* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

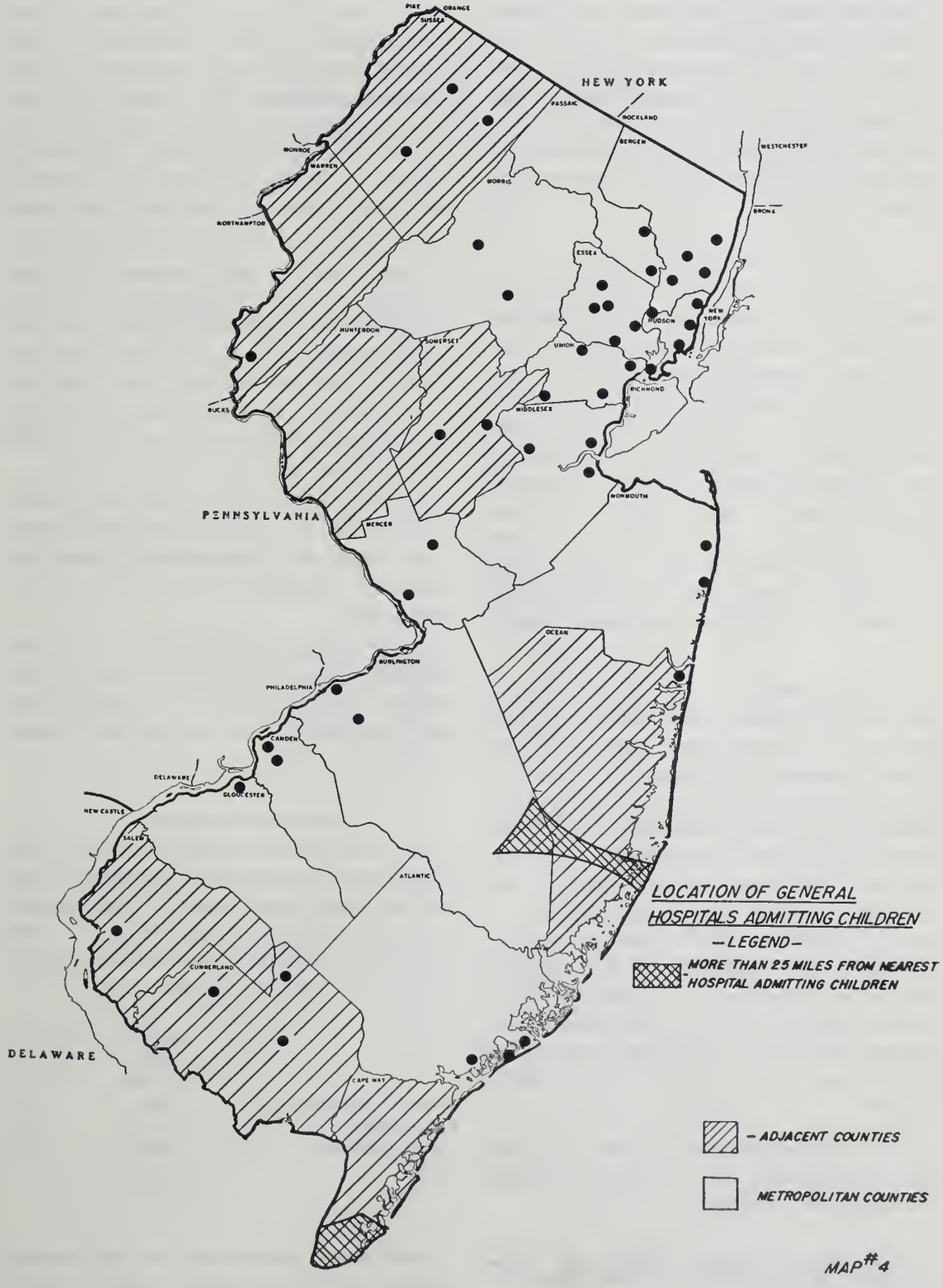
† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.


PIKE
ORANGE
SUSSEX
286
X
NEW YORK
PASSAIC
ROCKLAND
182
6,405
BERGEN
WESTCHESTER
MONROE
WARREN
MORRIS
280
13,735
BRONX
NORTHAMPTON
317
11,404
280
9,979
ESSEX
155
4231
NEW YORK
HUDSON
253
11,915
HUNTERDON
SOMERSET
UNION
204
7,106
RICHMOND
BUCKS
326
X
330
MIDDLESEX
18,164
277
8356
MONMOUTH
PENNSYLVANIA
MERCER
193
5418
221
7520
OCEAN
BURLINGTON
PHILADELPHIA
331
11,409
245
X
CAMDEN
DELAWARE
GLOUCESTER
290
NEW CASTLE
382
X
SALEM
10,354
ATLANTIC
498
X
179
11,739
CUMBERLAND
292
17,542
DELAWARE
CAPE MAY
205
X
RATIO OF CHILDREN TO PHYSICIANS
-LEGEND-
NUMBER OF CHILDREN UNDER 15 PER PHYSICIAN.
NUMBER OF CHILDREN UNDER 15 PER PEDIATRICIAN
X — NO PEDIATRICIAN IN COUNTY.
— ADJACENT COUNTIES
— METROPOLITAN COUNTIES
MAP # 1


PIKE
ORANGE
SUSSEX
7,434
26
0
NEW YORK
PASSAIC
ROCKLAND
64,048
352
10
BERGEN
WESTCHESTER
96,147
343
7
BROME
MONROE
WARREN
MORRIS
NORTHAMPTON
11,404
36
1
29,938
107
3
ESSEX
177,692
1148
42
HUDSON
NEW YORK
131,069
518
11
HUNTERDON
SOMERSET
UNION
78,164
383
11
RICHMOND
7820
24
0
18,164
55
1
BUCKS
MIDDLESEX
50,135
181
6
MONMOUTH
37,601
170
5
PENNSYLVANIA
MERCER
43,345
225
8
OCEAN
8341
34
0
BURLINGTON
PHILADELPHIA
22,817
69
2
CAMDEN
62,121
214
6
DELAWARE
GLOUCESTER
NEW CASTLE
ALEN
18,730
49
0
ATLANTIC
12,440
25
0
23477
131
2
CUMBERLAND
17,542
60
1
DELAWARE
CAPE MAY
6,158
30
0
DISTRIBUTION OF CHILDREN AND PHYSICIANS
-LEGEND-
— CHILDREN UNDER 15
— TOTAL PHYSICIANS
— PEDIATRICIANS
— ADJACENT COUNTIES
— METROPOLITAN COUNTIES

MAP* 2


NEW YORK
PENNSYLVANIA
DELAWARE
PIKE
ORANGE
SUSSEX
PASSAIC
ROCKLAND
BERGEN
WESTCHESTER
MONROE
WARREN
MORRIS
NORTHAMPTON
ESSEX
BRONX
HUNTERDON
SOMERSET
UNION
HUDSON
NEW YORK
BUCKS
MIDDLESEX
RICHMOND
MONMOUTH
MERCER
BURLINGTON
PHILADELPHIA
OCEAN
CAMDEN
DELAWARE
GLOUCESTER
NEW CASTLE
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
112
0
1353
159
597
99
87
334
11
21
3489
453
3069
334
0
1096
110
184
15
521
65
826
75
348
62
156
0
32
0
730
65
78
8
40
0
354
30
227
22
0
GENERAL HOSPITALS ADMITTING CHILDREN
—LEGEND—
-BEDS IN HOSPITALS ADMITTING CHILDREN
-HOSPITAL BEDS RESERVED FOR CHILDREN
ADJACENT COUNTIES
METROPOLITAN COUNTIES
MAP #3


PIKE
ORANGE
SUSSEX
NEW YORK
PASSAIC
ROCKLAND
BERGEN
WESTCHESTER
MONROE
WARREN
MORRIS
BRONX
NORTHAMPTON
ESSEX
HUDSON
NEW YORK
HUNTERDON
SOMERSET
UNION
BUCKS
MIDDLESEX
RICHMOND
MONMOUTH
PENNSYLVANIA
MERCER
OCEAN
BURLINGTON
PHILADELPHIA
CAMDEN
DELAWARE
GLOUCESTER
NEW CASTLE
SALEM
ATLANTIC
CUMBERLAND
DELAWARE
CAPE MAY
LOCATION OF GENERAL
HOSPITALS ADMITTING CHILDREN
—LEGEND—
MORE THAN 25 MILES FROM NEAREST
HOSPITAL ADMITTING CHILDREN
— ADJACENT COUNTIES
METROPOLITAN COUNTIES
MAP #4

DISTRIBUTION OF SPECIALISTS

This disparity in doctor-child ratio increases in the distribution of specialists, who cluster in the more densely populated areas and near hospitals. The Metropolitan counties* had 1319 or 97.6 per cent of the specialists (including pediatricians), while the Adjacent counties † had only 32 specialists or 2.4 per cent. Only three of the state's 116 pediatricians were located in Adjacent counties.†

BEDS IN GENERAL HOSPITALS

In access to local hospitals, the child population of Adjacent counties † was less than half as well off as children in Metropolitan counties.* Study reports showed 13,129 beds in hospitals admitting children, or one for each 64 children, in the Metropolitan counties. There were 702 beds, or one for each 127 children, in the Adjacent counties. There were reports from 20 hospitals with a total of 360 beds which admitted no child patients, but cared for maternity cases. It is, of course, recognized that all beds in the other hospitals are not available for children. See Maps 3 and 4.

The concentration of hospitals and specialists in the Metropolitan counties does not mean that these services are necessarily inaccessible to child residents of the rest of the state. In the main, patients consult specialists or enter hospitals by reference from their family physicians. Only two comparatively small sections of New Jersey are more than 25 airline miles from the nearest hospital which reported it admitted children, and so from the specialists on its staff. While the distances may be somewhat greater by road, it is improbable that many New Jersey residents are much more than an hour's travel by car or public conveyance from a hospital which admits children.

Many rural communities maintain first aid and rescue squads which provide ambulance service to their residents.

DISTRIBUTION OF GENERAL PRACTITIONERS

Distribution of general practitioners and some of the community health services are more intimately keyed to the level of child health service than are the distribution of hospitals and specialists. The disparity between the two county groups is not marked in respect to the number of general practitioners in terms of child population, but is wide in respect to the number of well-child conferences and accessibility of hospital outpatient service.

There were, the Study showed, 2571 general practitioners in Metropolitan counties,* or one for each 325 children. There were 258 general practitioners in Adjacent counties,† or one for each 346 children. This means that children in Adjacent counties have 6 per cent fewer general practitioners than are available to metropolitan children.

The Adjacent county † general practitioner, however, saw an average of 5.4 child patients a day, while his Metropolitan* county colleague saw an average of only 4.0. See Chart on page 325.

The Study showed that *general practitioners rendered 73.2 per cent of all child care by private practitioners* in the state, while pediatricians provided 12.1 per cent and other specialists 14.7 per cent.

HEALTH SUPERVISION

The total volume of child care was divided into 67.4 per cent for sick children and 32.6 per cent for health supervision of well children. General practitioners, pediatricians and other specialists divided their time between care for sick and well children in this manner:

	Sick Child Care Per Cent	Well Child Care Per Cent
General Practitioners	72.8	73.9
Pediatricians	7.4	21.9
Other specialists	19.8	4.2
Total	100	100

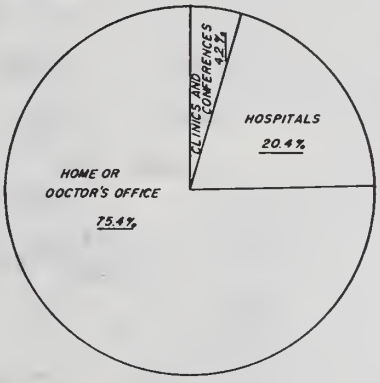
The general practitioner in the Adjacent counties had, in the main, a slightly higher average child population to deal with than the

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

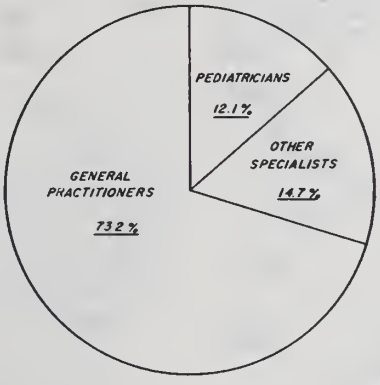
† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.

CHILD MEDICAL CARE IN NEW JERSEY ON AN AVERAGE DAY

WHERE



BY WHOM



WHY

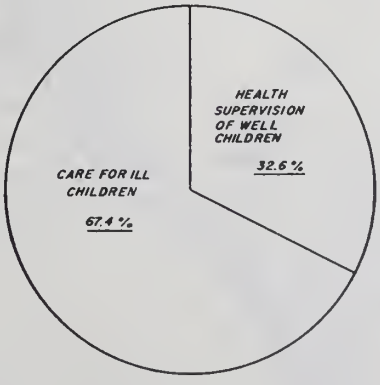
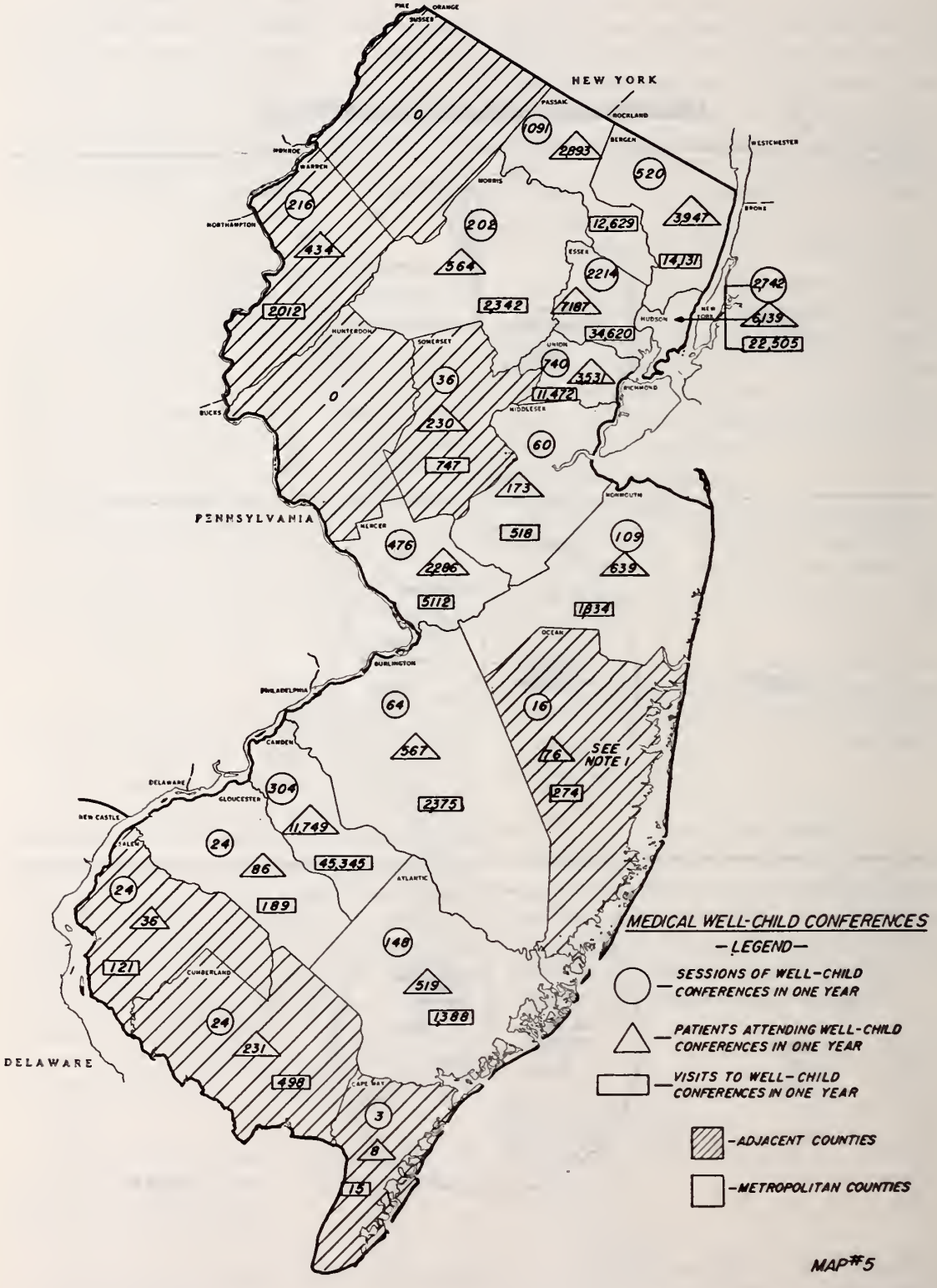


CHART #1


NEW YORK
PENNSYLVANIA
DELAWARE
PIKE
ORANGE
SUSSEX
PASSAK
ROCKLAND
BERGEN
WESTCHESTER
BRONX
MONROE
WARREN
MORRIS
NORTHAMPTON
ESSEX
HUDSON
NEW YORK
HUNTERDON
SOMERSET
UNION
BUCKS
MIDDLESEX
RICHMOND
MONMOUTH
MERCER
OCEAN
BURLINGTON
PHILADELPHIA
CAMDEN
DELAWARE
GLOUCESTER
NEW CASTLE
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
0
1091
2893
520
216
208
12,629
3947
434
564
14,131
2214
2742
2012
2342
7187
6139
34,620
22,505
740
353
36
11,472
230
60
747
173
476
518
109
2286
639
5112
1834
64
16
567
76
SEE NOTE 1
304
2375
274
11,749
24
86
45,345
24
189
36
148
121
519
1388
24
231
498
3
8
15
MEDICAL WELL-CHILD CONFERENCES
—LEGEND—
— SESSIONS OF WELL-CHILD CONFERENCES IN ONE YEAR
— PATIENTS ATTENDING WELL-CHILD CONFERENCES IN ONE YEAR
— VISITS TO WELL-CHILD CONFERENCES IN ONE YEAR
— ADJACENT COUNTIES
— METROPOLITAN COUNTIES
MAP #5

Metropolitan county general practitioner. Also the Adjacent county population is scattered over wider distances which makes calls more time consuming.

These factors affect all care. In respect to well-child supervision the Adjacent county general practitioner carries an added burden also, because only three pediatricians practiced in the eight Adjacent counties.† The pediatrician weighed heavily in the well-child supervision because (though representing only 3 per cent of the doctor population) they gave more than 20 per cent of such care.

Thus, it appears that the Adjacent county † child has a poorer chance at health supervision through private doctor care than the child in Metropolitan counties. The proportion receiving such supervision on an average day was one out of 249 in Adjacent † counties; one out of 171 in Metropolitan* counties.

However, the Adjacent † county child's chance at health supervision at community medical well-child conferences was even poorer —about one-third that of the Metropolitan* county child. There was, on the basis of Study reports, one "well-child conference" session per year for each 96 children in Metropolitan counties; one for each 280 children [4] in Adjacent counties. See Map 5.

These conferences care principally for infants and pre-school age children, however. There were 327,426 children under five years of age in the Metropolitan counties, 33,448 in Adjacent counties. The ratio of sessions to pre-school population was one to 38 in Metropolitan counties, one to 105 in Adjacent counties.[4] That still gave the Adjacent county † child about one-third the potential service of the Metropolitan county* child.

OUT-PATIENT FACILITIES

Two counties in the "adjacent" group reported no well-child conferences. They were Hunterdon and Sussex, with a combined child population of 15,254 and a pre-school population of 5654.

Another index to the level of well-child supervision in the two groups of counties is the number of immunizations done by community health agencies. For the three commonest immunizations, here was the record per thousand children during the report year, according to study returns:

	Smallpox	Diphtheria	Whooping Cough
Metropolitan*	34.4	57.7	34.7
Adjacent †	19.6	40.2	10.6

In the realm of sick child care, the Study depicted the Adjacent county doctor † as rather harder working than his Metropolitan* colleague. In the Adjacent counties, where there were fewer doctors in comparison with child population, a higher level of daily visits for sick child care was reported. In Adjacent counties the doctors daily visited an average of 13.0 of each 1000 children for sickness; Metropolitan county doctors visited 11.6 per 1000. The figures include home, office and hospital in-patient care.

The hospital out-patient clinic picture showed more than 19 times as many clinic visits by children in Metropolitan counties as in Adjacent counties. Of 58 clinics which reported treating children, 52 were in Metropolitan counties, six in Adjacent counties. Metropolitan county clinics reported 35,189 visits in the report year, Adjacent county clinics 1821. These were sick child visits.

PUBLIC HEALTH NURSING

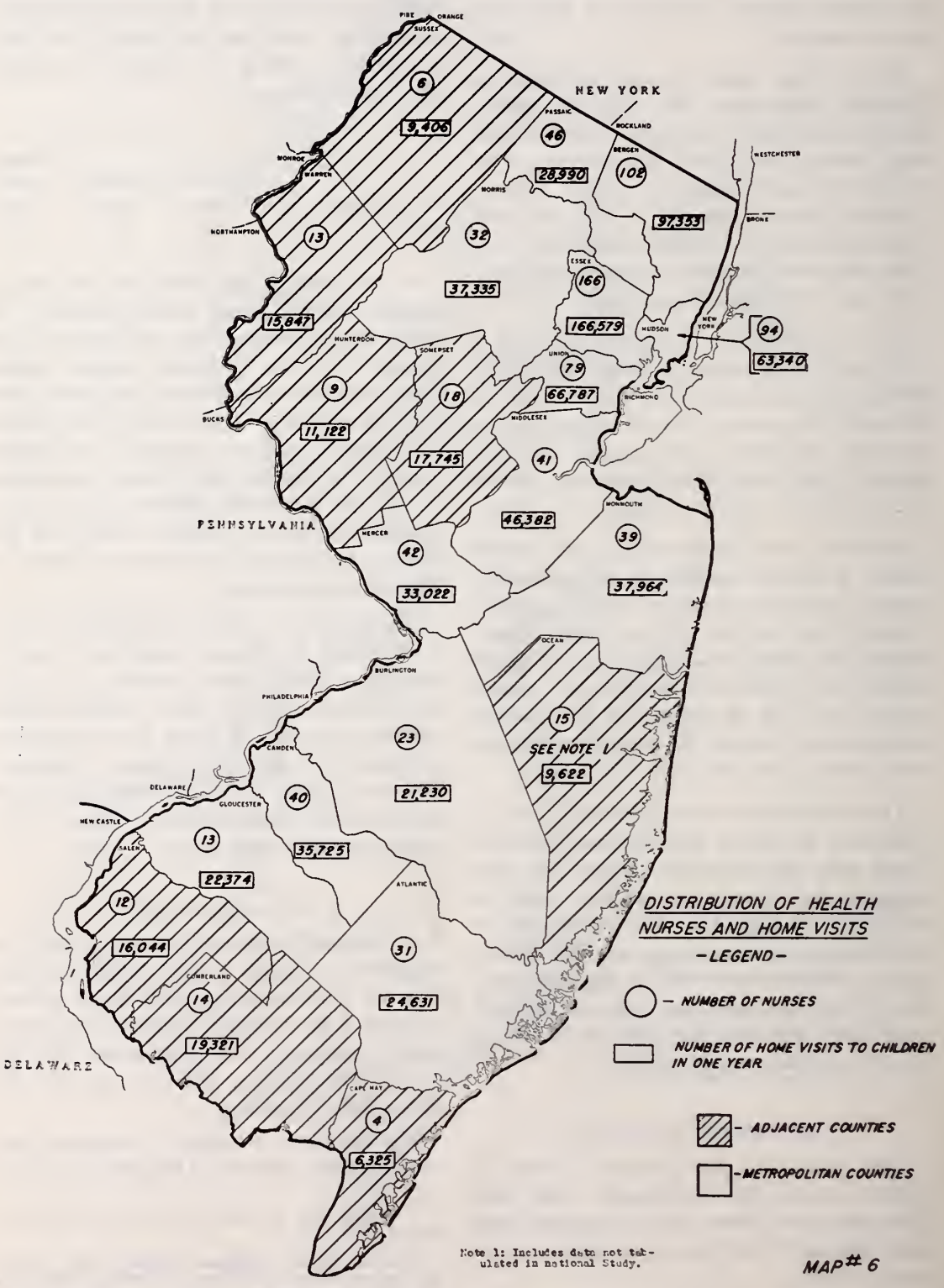
In Adjacent counties, however, greater use was made of public health nursing services. The 839 full-time paid public health nurses [4] reported in the state were divided between the county groups in this proportion—89.2 per cent in Metropolitan, 10.8 per cent in Adjacent counties. See Map 6.

The 91 nurses working in Adjacent counties, however, reported 13.4 per cent of the

4. Includes data on Ocean County not tabulated in the national Study.

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.



Note 1: Includes data not tabulated in national Study.

MAP # 6

787,044 home visits [4] to children in the state in the report year. The 748 Metropolitan county nurses made 86.6 per cent.

On a statewide basis 851 home visits [4] were recorded for each 1000 children—*the highest rate in the nation.*

Total home visits by public health nurses exceeded the number of children in all but one Adjacent county. The exception was Somerset where nurses made one call for each 1.02 children. Home visits exceeded the number of children in five Metropolitan counties—Atlantic, Bergen, Gloucester, Monmouth and Morris. In two, Hudson and Passaic, visits totaled less than half the number of children.

Though total home visits was used as a gage of the level of public health nursing service, the nurses performed many other duties including assisting at "well-child" conferences and school health programs and providing bedside nursing care.

Of the 839 full-time nurses,[4] 567 were employed by state, county or municipal bodies, while 272 served through voluntary agencies. A large corps of State Health Department nurses furnished the nucleus of the program.

Of 516 nurses who reported on special public health training, there were 131 who had taken at least a year of academic study in that field. Only four of these were listed in Adjacent † counties. Supervisors for official agencies were not included in the report.

HOSPITALS

The Study covered 99 general hospitals, of which 79 admit children. The 79 included 28 hospitals of 25 to 99 beds, 28 of 100 to 249 beds, 19 of 250 or more beds, and four of five to 24 beds. The geographic distribution of hospitals and hospital beds is shown in Maps 3 and 4.

Of the 79 hospitals admitting children, there were 55 with pediatric units,[5] including one all-pediatric hospital. They provided 1542 beds reserved for children in a total capacity of 12,447 beds. The other 24 hospitals had 1384 beds, none of which were reserved for children.

In the study year the hospitals with pediatric units [5] admitted 43,288 children, 91.7 per cent of the 47,195 admitted to all hospitals studied.

None of the hospitals with pediatric units [5] was in the smallest (5 to 24 bed) study group; 12 were in the 25-99 bed category; 43 were hospitals of 100 or more beds. All 19 hospitals with more than 250 beds had pediatric units.

Of the 55 hospitals with pediatric units five were in "adjacent" counties.† They provided 48 beds for children of a total bed capacity of 464.

In an attempt to evaluate the quality of hospital service for children, the Study compared hospitals on the basis of several special characteristics indicating organization or high quality care. The 55 hospitals with pediatric units [5] represented a high proportion of those possessing these characteristics.

The comparison by characteristics between hospitals with and without pediatric units is shown in the table below which lists the number of hospitals which had each characteristic in each group. Those which failed to report on a characteristic were deemed to be without it.

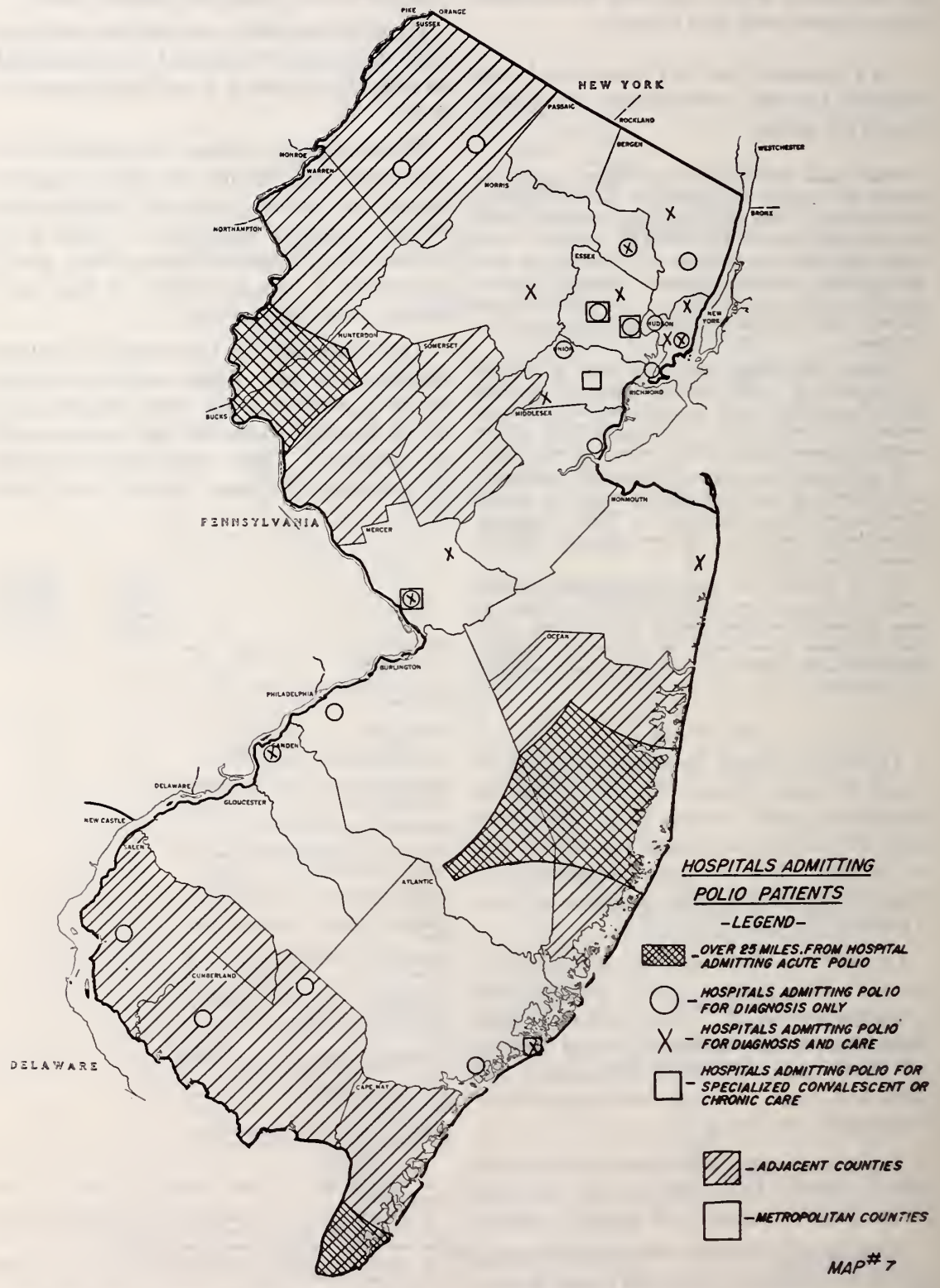
	Hospitals With Pediatric Units [5] (55 total)	Other Hospitals Admitting Children (24 total)
Separate wards for infants (other than newborn)	41	0
Communicable disease units of 10 or more beds	4	0
House staff	47	7
Separate pediatric house staff	8	0
Graduate nurse on duty in pediatric unit at all times	43	0
Qualified dietitian on staff	46	12
Medical social service organized as separate department	29	0
Clinical laboratory in hospital	52	20
Selected laboratory services available [6]	52	8
Blood or plasma bank in hospital or accessible	52	16
Rh-negative blood readily available	41	10
Oxygen tents in hospital for use with children	48	12
Individual thermometer, towel, wash basin for each infant and older child	22	3
All milk pasteurized for infants and older children	49	14
Isolation and/or cubicle separation procedure for new admissions	42	8

4. Includes data on Ocean County not tabulated in the national Study.

5. A "pediatric unit" is defined as a group of five or more beds permanently set aside for the care of children in a hospital containing a total of more than 25 beds.

6. Blood level for sulfonamides, sedimentation rates, blood cultures and serum protein.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.


NEW YORK
PENNSYLVANIA
DELAWARE
PIKE
ORANGE
SUSSEX
PASSAIC
ROCKLAND
BERGEN
WESTCHESTER
BRONX
MONROE
WARREN
MORRIS
NORTHAMPTON
ESSEX
HUDSON
NEW YORK
HUNTERDON
SOMERSET
UNION
BUCKS
MIDDLESEX
RICHMOND
MONMOUTH
MERCER
OCEAN
BURLINGTON
PHILADELPHIA
CAMDEN
DELAWARE
GLOUCESTER
NEW CASTLE
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
HOSPITALS ADMITTING POLIO PATIENTS
-LEGEND-
- OVER 25 MILES FROM HOSPITAL ADMITTING ACUTE POLIO
- HOSPITALS ADMITTING POLIO FOR DIAGNOSIS ONLY
- HOSPITALS ADMITTING POLIO FOR DIAGNOSIS AND CARE
- HOSPITALS ADMITTING POLIO FOR SPECIALIZED CONVALESCENT OR CHRONIC CARE
- ADJACENT COUNTIES
- METROPOLITAN COUNTIES
MAP # 7

FACILITIES FOR POLIOMYELITIS

Twenty-four of the 99 general hospitals studied accepted acute cases of infantile paralysis for diagnosis and emergency treatment only; another seven accepted them for care. The other 58 hospitals did not accept such patients. All contagious disease hospitals, however, admit poliomyelitis cases for diagnosis and care. Two convalescent and three orthopedic hospitals admitted them for specialized convalescent or chronic care. See Map 7.

Three comparatively small areas in the state are more than 25 miles from a hospital admitting acute cases. One of these areas lies across the Delaware River from a well-hospitaled area in Pennsylvania. Three-quarters of the area outside a 25-mile radius of a hospital admitting poliomyelitis lies in adjacent counties.

FACILITIES FOR THE NEWBORN

Of the 99 hospitals studied, 95 had maternity services and facilities for care of the newborn. All had separate nurseries for newborn infants. There were 82 hospitals with 2699 bassinets in Metropolitan counties,* 13 with 214 bassinets in the Adjacent counties.†

A comparison by characteristics between hospitals in the two county groups is shown in the table below, which lists the number of hospitals which had each characteristic in each group. Those which failed to report on a characteristic were deemed to be without it.

	Metropolitan Counties* (82 total)	Adjacent Counties† (13 total)
Separate nursery for full-time sick or suspect	33	2
Separate nursery for premature infants	24	1
Graduate nurse on duty at all times in newborn nursery	68	9
Graduate nurse on duty at all times in premature nursery	22	1
Running water 7 for hand washing in nursery	58	9
Room exclusively for formulae preparation 7	49	6
All milk mixtures sterilized for newborn 7	57	9
Out-patient department admitting children	52	6
Separate pediatric clinic	42	1

Hospitals in the two county groups made approximately equal use of their maternity facilities in the report year, the Study indicated. Among the hospitals studied, those in Metropolitan counties had 92.7 per cent of the bassinets and reported 92.8 per cent of the births.

However, a larger proportion of Metropolitan county* births than Adjacent county † births occurred in hospitals. A recent report by the State Department of Institutions and Agencies showed that in 1944 more than 90 per cent of all births in eight Metropolitan counties occurred in hospitals; and in only two Metropolitan counties did the percentage drop below 85. The high Metropolitan county was Bergen (97.5 per cent) and the low was Burlington (81.5 per cent).

Of the eight Adjacent † counties, only one (Somerset, 91.2 per cent) was reported as having over 90 per cent of its babies born in hospitals. Four of the eight had less than 85 per cent. The lowest was Sussex with 77.5 per cent.

The same report showed that the average death rate in the first year of life (for the years 1941 to 1945) in Metropolitan counties* was 32.9 per thousand live births. In the Adjacent counties † it was 36.9 per thousand live births.

SPECIAL HOSPITALS

Special Hospitals studied which admitted children, included one for nervous and mental ailments, six for tuberculosis, four for convalescent and chronic care, six for contagious diseases, three for orthopedics, two for eye-ear-nose-throat, and three institutions for mental deficiency and epilepsy.

They reported these child admissions for the report year, and these facilities for child care:

	Admissions		Waiting List	Beds	
	child	total	(children)	child	total
Nervous and mental	18	925	0	40	3000
Tuberculosis	616	2250	2	426	1921
Convalescent and chronic	533	533	30	300	300
Contagious	1764	3981	..	95	774
Orthopedic	580	1276	50	80	169
Eye and Ear	1025	3010	..	7	72
Mental deficiency and epilepsy	1002	1184	249	164	2329

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.

7. Tabulated only for hospitals having 25 beds or more.

"WELL-CHILD" CONFERENCES

Of a total of 9013 sessions[4] of pre-school "well-child" conferences reported in the state in the Study year, 8694 (or 96.5 per cent) were held in the 13 Metropolitan counties.* There were 319 (or 3.5 per cent) in the Adjacent counties † where 9.7 per cent of the children resided. See Map 5.

The conferences in Metropolitan counties saw an average of one out of each eight children under five in the report year and the children averaged 3.8 visits. In Adjacent counties an average of one out of 33 children under five attended conference sessions. They averaged 3.6 visits during the year.

Official agencies sponsored all but 428 sessions in the report year. Voluntary agencies provided these 428 conferences in Metropolitan counties.

Part-time paid general practitioners gave all the routine medical service at the conferences in Adjacent counties. In Metropolitan counties general practitioners provided 86.1 per cent of such service while pediatricians supplied 9.1 per cent and health officials 4.8 per cent. The physicians served on a part-time basis and were paid (except for general practitioners at 27 conference sessions.)

In a check of a selected group of conference practices, the Adjacent county † conferences showed a marked uniformity because all but 16 sessions were given or supervised by the State Department of Health. That meant that Department of Health specialists, though they did not attend the sessions routinely, were available for consultation. Physicians on the staff of the Department of Health periodically visit the well-child conferences to assist physicians in acquiring a better understanding of child growth and development.

The Adjacent county conferences gave no whooping cough immunizations routinely. Otherwise all (except three stations which reported only 16 sessions) were listed as offering all the services which the Metropolitan county conference offered in this proportion of sessions:

	Per-cent
Routine smallpox and diphtheria immunization	58
Routine whooping cough immunization	44
Advice to mothers	97
Consultant nutritionist available	74
Consultant psychologist or psychiatrist available	58
Public health nurse follow-up in the home	95

SCHOOL HEALTH SERVICES

In New Jersey every school district is required by law to have a school physician and perform some routine examination. Most of the physicians serve on a part-time basis. This Study covered school health practices in 523 of the state's 566 municipalities. There were 563,713 school age (5 to 14 years) children in the state.

The districts studied reported service by a total of 604 physicians, all but seven of whom were general practitioners. The Newark Board of Education listed four pediatricians and three eye-ear-nose-throat specialists. Work of the school doctors was supplemented by services of 781 nurses, 440 full-time and 341 part-time.

The municipalities studied included 386 in Metropolitan* counties and 137 in Adjacent † counties. The Metropolitan county schools had the services of 496 doctors, the Adjacent county schools of 108. Apparently the same doctors serve several districts in some cases.

Most of the school nurses in Metropolitan county schools work full-time; most of those in Adjacent county schools part-time. Metropolitan county schools reported 410 full-time and 263 part-time nurses. Adjacent county schools reported 30 full-time and 78 part-time nurses.

Of 308 Metropolitan county municipalities for whose schools the pupil examination procedures were reported, 198 (or 64.3 per cent) examined all students each year; 108 (or 35.1 per cent) examined all students on entrance and every three years thereafter; two (or 0.6 per cent) examined all students on admission and every two years thereafter.

In the Adjacent county municipalities 107 (or 78.1 per cent) reported annual examinations of all pupils, and 30 (or 21.9 per cent) reported exam-

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.

4. Includes data on Ocean County not tabulated in the national Study.

inations on entrance and every third year thereafter.

Nurses taught in classrooms in 28.5 per cent of the Metropolitan county and 17.9 per cent of the Adjacent county communities which reported on that score. Nurses participated in construction of health education courses and were advisers to health teachers in 46.5 per cent of the Metropolitan county communities and 41.8 per cent of the Adjacent county communities which reported on that phase.

MENTAL HYGIENE SERVICES

Three counties — Cape May, Cumberland and Salem—reported no community mental hygiene facilities in children's clinics. Principal services in the rest of the state (outside of Newark) were 46 clinics operated by the three State mental hospitals.[8] Their clinics were held in 40 communities in 18 counties and cared for 2183 child patients in the report year. That was 44 per cent of all child patients reported seen at community mental hygiene sessions. The other 56 per cent (2767 patients) were seen at three services sponsored by voluntary agencies and two operated by the City of Newark. Two of the voluntary agencies are in Essex County and reported treating 275 patients in the Study year. The other, in Atlantic County, reported 150 patients. The three City of Newark services treated 2342 children. See Map 8.

The state total of 4950 patients made 7732 visits to the mental hygiene clinics. Facilities handling 6747 of the visits had one or more full-time psychiatrists on the staff. The balance was composed of 663 visits to the three clinics sponsored by voluntary agencies and 322 visits to one of the City of Newark clinics. All these clinics were served by one or more part-time paid psychiatrists.

The facilities handling 2543 of the visits offered what the Study deemed a complete staff service including a full-time or part-time psychiatrist, psychologist and social worker.

Though they were not classified as community health services in the Study, location of five general hospital out-patient mental hygiene clinics for children only are also shown on Map 8. No details of staff or treatment at these out-patient clinics were included in the Study. General mental hygiene clinics to which children might be admitted were listed by fourteen hospitals.

FACILITIES FOR HANDICAPPED CHILDREN

In this category, New Jersey, according to the Study, trails the nation. Within the Study's definition of community services, only four units in the state reported treating physically handicapped in the report year. One was the rheumatic heart clinic of the State's Crippled Children's Commission. The other three were orthopedic clinics sponsored by the Benevolent and Protective Order of Elks. The former is in Newark, while the orthopedic units are in Millville, Phillipsburg and New Brunswick. The Millville clinic also offers rheumatic heart service.

The Study, because of its format, did not reflect as "community service" orthopedic and plastic surgery service provided by the Crippled Children's Commission in hospital wards, nor the care furnished in poliomyelitis through the New Jersey chapters of the National Foundation for Infantile Paralysis. Certain types of service offered by other voluntary agencies, state services for the blind, the deaf, and those with speech handicaps also were not included. Fifty-two of the hospitals covered in the Study reported orthopedic out-patient clinics admitting children. Eleven of them (all in Metropolitan counties) were for children only. There were also four orthopedic clinics in the Adjacent counties.†

The four community clinic units which were considered in the Study reported treating 274 patients who made 1207 visits to clinic sessions.

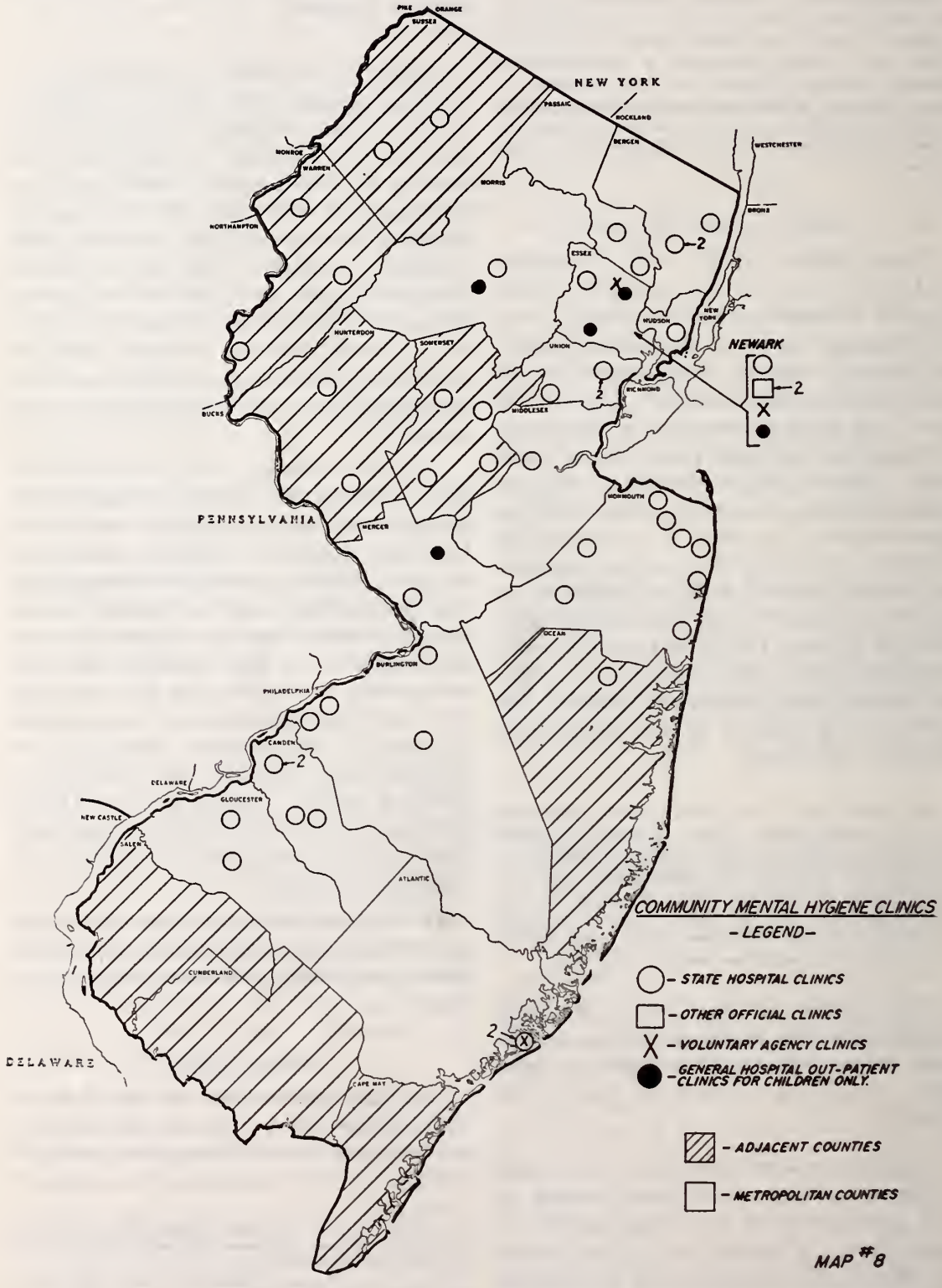
DENTAL CLINICS

The Study indicated that the role of dental clinic services in the Adjacent counties † lagged far behind those in Metropolitan counties.* Children's teeth were examined at school and

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.

8. At Trenton, Marlboro and Greystone Park.


NEW YORK
PENNSYLVANIA
DELAWARE
NEWARK
PIKE
ORANGE
SUSSEX
PASSAIC
ROCKLAND
BERGEN
WESTCHESTER
BRONX
MONROE
WARREN
MORRIS
NORTHAMPTON
ESSEX
HUDSON
NEW YORK
HUNTERDON
SOMERSET
UNION
RICHMOND
BUCKS
MIDDLESEX
MONMOUTH
MERCER
OCEAN
BURLINGTON
PHILADELPHIA
CAMDEN
DELAWARE
GLOUCESTER
NEW CASTLE
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
COMMUNITY MENTAL HYGIENE CLINICS
- LEGEND -
- STATE HOSPITAL CLINICS
- OTHER OFFICIAL CLINICS
- VOLUNTARY AGENCY CLINICS
- GENERAL HOSPITAL OUT-PATIENT CLINICS FOR CHILDREN ONLY.
- ADJACENT COUNTIES
- METROPOLITAN COUNTIES
MAP #8

other community dental clinics in Metropolitan counties at a rate nearly five times that in Adjacent counties. One of each 4.9 examined in Adjacent counties received treatment, while one of 7.5 in Metropolitan counties received treatment.

Comparative rates per 1000 children for the two county groups were:

	Metropolitan	Adjacent
Dentist hours at clinics	81.5	29.6
Examinations	408.8	86.2
Patients given treatment	54.2	17.5
Ratio of Examinations to Patients given service	7.5	4.9
Visits per patient	2.6	4.7
Total service per patient	3.0	5.2
Ratio of fillings to extractions	2.1	3.1

These rates were drawn from reports of community and school programs in 19 counties. No reports were received from Gloucester or Salem counties. Total dentist-hours reported was 70,709; total examinations 349,128, and total patients treated 46,801. These returns, (though they are representative and include the activities of the State Health Department's Division of Dental Hygiene) are not complete. Voluntary agencies and boards of education in almost all counties sponsored dental programs for which no records were available.

PHYSICIANS

The 4180 physicians in active private practice in the state included 2829 general practitioners, 116 pediatricians, and 1235 other specialists. Thus there was one specialist for each 2.1 general practitioners in the state.

In Metropolitan* counties there was one specialist for each 1.9 general practitioners. In Adjacent † counties there was one for each 8.1 general practitioners.

There was one diplomate of the American Board of Pediatrics for each 2.5 pediatricians, and one diplomate of other specialty boards for each 3.1 other specialists listed. The other specialists included 297 in internal medicine, 9 in allergy, 64 in psychiatry and neurology, 329 in surgery, 61 in orthopedic surgery, 129 in obstetrics and gynecology, 260 in ophthalmology and otolaryngology, and 86 divided among radiology, anesthesiology, pathology, and bacteriology.

The proportion of diplomates in these specialities ranged from one for each 5.1 surgeons (except orthopedic surgeons) to one for each 1.9 in the radiology, anesthesiology, pathology, bacteriology group.

With regard to hospital training of general practitioners, the Study revealed pertinent differences in age groups. The hospital training reported by New Jersey general practitioners, grouped according to age, is shown in this table:

Hospital Training	All Ages (100%)	Under 45 yrs. (100%)	45-64 yrs. (100%)	65 yrs. or more (100%)
None or less than one year	15.5	9.9	19.0	37.2
One year or more of hospital training including—				
None or less than one month in pediatrics	23.7	15.8	30.9	47.1
One month or more in pediatrics	60.8	74.3	50.1	15.7
Total	100%	100%	100%	100%

Most of the older doctors, as the table indicates, have had less hospital training (both pediatric and general) than the younger group. However, this does not mean that older physicians are less competent than their juniors to care for children. Years of experience in active general practice represent invaluable training. Many of the older doctors have supplemented this with graduate work in pediatrics.

The sex-color-county distribution of general practitioners is displayed in the following table:

General Practitioners	White M	White F	White T	Non-white M	Non-white F	Non-white T	Total
Metropolitan counties*.	2397	88	2485	83	3	86	2571
Adjacent counties†	248	8	256	2	0	2	258
The state	2645	96	2741	85	3	88	2829

Of the 99 women general practitioners, all but eight practiced in Metropolitan* counties. There were only three non-white female general practitioners; all of them practicing in Metropolitan counties. Of the 85 non-white male general practitioners, all but two were in Metropolitan counties.*

PEDIATRICIANS

Of the 116 pediatricians in the state, 92 reported on their hospital training. Of the 92 all but one had had a hospital internship and residency of at least one year. Sixty reported one to three years of such training, 27 three to five years, and four had five years or more.

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.

In specialized hospital training in pediatrics the 92 reported this status:

None or less than one year	35
One to two years	24
Two to three years	24
Three years or more	9

For graduate training, 79 pediatricians reported as follows:

None or less than 6 weeks	56
Six weeks or more	23

Twelve pediatricians of the 88 who reported on the question said they practiced a specialty within pediatrics. Nine specialized in child allergy, two in child psychiatry or behavior problems, and one in child cardiology. The other 76 reported a generalized pediatric practice.

All 92 who reported in detail said they had ready access to laboratory services, including blood counts, urinalysis, blood chemistry, hemolytic streptococcus culture and x-ray and/or fluoroscopy. All but one had ready access to electrocardiographic services.

Forty-seven pediatricians were diplomates of the American Board of Pediatrics.

Distribution of pediatricians and children by counties is indicated below:

	Number of children	Number of pediatricians
Metropolitan counties*	835,284 or 90.3%	113 or 97.4%
Adjacent counties†	89,303 or 9.7%	3 or 2.6%
State Total	924,587 or 100%	116 or 100%

COMMENT AND SUGGESTIONS

The Study illuminated in detail several weaknesses of the pattern of child medical care in New Jersey, though the state ranks well in the national child care picture. Principal findings highlighted by the survey were:

1. There were too few doctors in our state.

2. Not enough of them had had much formal training in the special problems of child health.

3. The doctors, hospitals and community health services were inequitably distributed so that there were between sections of the state, wide variations in child health services.

NOTE—The Study was made at a time when many physicians still were in the armed forces, which perhaps makes the picture of total doctor supply somewhat inaccurate today. However, there seems no reason to believe that the disparities in *distribution* of physicians have been lessened by the return of the rest of the doctors from wartime service. As a matter of fact, the method of enlisting medical personnel for the army or navy was such that most of the physicians were taken from areas well supplied with medical care. If anything, the return of all the wartime medical officers probably tended to widen the gaps between available physician services in Adjacent ‡ and Metropolitan § counties.

Steps to attract physicians into less urban types of practice have been initiated in the last several years, by organized medicine on all levels. The Study results indicate why, here in New Jersey, these efforts must be pressed to the utmost, perhaps ultimately to the point of community or some other type of subsidy to attract competent doctors into practice in the "less lucrative" areas. Certainly, something must be done to afford the child in New Jersey's rural countryside as good a chance at health supervision and medical care as the city or suburban child enjoys. First requirement is to equalize more nearly, the basic distribution of physicians.

An important step in this direction is the creation of better facilities for the doctor in the country to practice the best and most modern medicine and to keep abreast of new medical developments. Best apparent solution to that problem is more rural hospitals and health centers, especially those with close ties to large metropolitan hospitals or teaching institutions.

Progress in that direction is being made. In rural Hunterdon County, for instance, a hospital trustee group has been incorporated, funds are being raised, and a contract with New York University has already been signed, all looking towards the establishment in that

* Atlantic, Bergen, Burlington, Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic and Union Counties.

† Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren Counties.

‡ The counties of Cape May, Cumberland, Hunterdon, Ocean, Salem, Somerset, Sussex and Warren are classed as "adjacent counties". See page 317 for explanation.

§ The 13 counties not listed in the footnote above are classed as "metropolitan counties", not because they are all urban in composition, but because they lie within easy range of large cities. See page 317 for explanation.

county of an approved hospital with a medical school affiliation. During the past two years, several other New Jersey hospitals have already established medical school ties.

Greater emphasis on a decentralized program of training for residents in pediatrics would put more young modernly-trained men in smaller hospitals for limited periods. Rotation of such residents to non-teaching hospitals from larger institutions qualified for residencies would give the residents broader experience, make possible greater child care services by smaller hospitals, and stimulate interest in pediatrics in hospital staffs which now lack residents. The plan is in effect in some other states.

More well-staffed country hospitals, of course, would automatically improve the lot of "Adjacent" county children in regard to accessibility to out-patient facilities. This is the service in which the Study showed the greatest lack in Adjacent counties by comparison with Metropolitan counties.

The need for expanded access to post graduate work in pediatrics by active general practitioners, pediatricians and other physicians is acute in all sections of the state. There are some noteworthy projects, but not enough. Pediatrics is a relatively young specialty and has not been emphasized in the undergraduate courses of many medical schools. The benefits of the growing knowledge about care for children, however, must be carried to all doctors in the state if New Jersey is to have the best possible child health service.

Hospitals and professional organizations, both rural and urban, must undertake graduate training projects to bring this knowledge to all physicians. It must not be confined to the pediatricians. *General practitioners in New Jersey treat six children for every one treated by a pediatrician.*

Especially must the importance of "well child" supervision be emphasized—and access to it rendered more general. This is the watchful and preventive phase of child medical service which perhaps can contribute most directly to improvement of the level of child health. It is among the services in which the disparity between Metropolitan and Adjacent counties is greatest.

There are obvious obstacles to large scale and effective medical "well child" services in rural areas. Homes are widely scattered. Agricultural life fosters a family organization which makes it difficult for a mother to devote many hours to long trips for routine checks on the growth and development of her children.

It is essential in such services, too, that a child be seen at comparatively frequent intervals. Single or long-interval checks are better than none—but they do not provide the trained watch over development which is the most valuable feature of the service.

Traveling well child units sponsored by groups of municipalities, or health and welfare organizations might be a way to make this service effective in currently under-serviced areas. With physicians from the area serving on a rotating basis, such a unit could cover a wide area on an established circuit. One-day or part-day stands in well-publicized and regular locations could bring well child supervision within ready reach of many families for whom it now is impracticable.

Heightened public education programs on the importance of child health supervision—and child health care in general—would be necessary through community agencies and other organizations to make such a program work. The educational programs themselves would be a worthwhile venture.

4. With respect to facilities for care of physically handicapped children, in which the national Study ranked New Jersey *lowest among the 48 states,* the picture is not as gloomy as that might indicate. While there is room for expansion in the facilities and services for the care of the physically handicapped, New Jersey does offer more services than were reflected in the Study figures.

This Study covered a period when wartime pressures had interrupted a cerebral palsy program operated by the State Crippled Children Commission. It has been reactivated and now provides five treatment centers for cerebral palsied children. Other activities of the commission were not reflected as community services in the Study because they provide care through hospital wards instead of at clinics.

The New Jersey Chapter, National Society for Crippled Children and Adults also has come into substantial activity in this field since the Study data were compiled. The county chapters of the National Foundation for Infantile Paralysis also render to children handicapped by poliomyelitis a large service through private and hospital care which was not reflected as community service in the Study. Clinics of the Elks Crippled Children's Committee were included in the Study as community services.

5. Two-thirds of the active practitioners in New Jersey cooperated to the extent of participating helpfully in this Survey.

6. In infant mortality, New Jersey ranks fifth; that is, infant mortality is higher in 43 states than it is in New Jersey.

7. In proportion of patients and visits to clinics for handicapped children, New Jersey has the poorest rate in the country. Part of this, however, is due to a statistical artifact, explained above.

8. A higher proportion of our pre-school children are under health supervision than in all but two other states.

9. Our state has a ratio of one physician per 221 children. The "optimum" ratio is one to 157. Essex County is the only area in the state which approaches this figure. The lowest ratio is in Salem county where the proportion is one to 498.

10. Using the Survey's general classification, our state has 13 "metropolitan counties" and 8 "adjacent counties". The Metropolitan counties* contain 90 per cent of the children, 93 per cent of all physicians and 97½ per cent of the pediatricians. The Adjacent counties † are thus undermanned.

11. In Metropolitan counties* there is a hospital bed for each 64 children; in Adjacent counties,† the ratio is only one for each 127 children.

12. The disproportion between Metropolitan and Adjacent counties was not so great in terms of general practitioners available to treat children, as it was in terms of specialists. Thus in the former areas, there were 325 children per general practitioner, while in Adjacent counties the ratio was 346. To some extent even this slight disproportion was balanced by the fact that the doctor in the Adjacent county saw more children (5.4 compared with 4.0) per day than his colleague in a Metropolitan county.

13. New Jersey is at the top of the list when it comes to home visits by Visiting Nurses. Our ratio of 851 visits per thousand children, is the highest figure in the country. Greater use of visiting nurse services is made in Adjacent † counties than in Metropolitan* counties.

14. Seventy-nine New Jersey hospitals admit children. Fifty-five of these have organized pediatric units [5] and provide 1542 beds reserved for children.

15. Most New Jersey hospitals do not accept poliomyelitis patients.

16. Community mental hygiene facilities for children are available in all counties except Cape May, Cumberland and Salem.

17. In New Jersey, general practitioners treat six children for every one treated by a pediatrician.

These comments and conclusions have touched on only the broadest aspect of the findings of the Study. They suggest, however, directions in which the medical profession can improve its efforts to bring every New Jersey infant into healthy adulthood. Ultimate success of such an effort depends not only on medical care but also on a number of other equally important factors, such as education, sanitation, nutrition and housing.

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5. See footnote 5, page 329 for definition of "pediatric unit".

* The Metropolitan counties are Atlantic, Bergen, Burlington Camden, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic, Union.

† The Adjacent counties are Cape May, Cumberland, Hunterdon, Ocean, Salem, Sussex and Warren.

PHEOCHROMOCYTOMA: A CAUSE OF POST-PARTUM CONVULSIONS *

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Tumors of the chromaffin tissue have always been considered to be among the rarer types of neoplasms. In 1929, Rabin[1] was able to collect only 30 authentic cases. By 1939 only 90 cases had been reported[2] and at the present writing approximately 175 cases have been listed in the literature. The diagnosis is being made more frequently because of the increased index of suspicion among doctors plus the introduction of more accurate diagnostic methods. The association of pheochromocytoma with pregnancy, however, is a distinct rarity. It is our purpose to report a post-partum patient with convulsions in whom a pheochromocytoma was diagnosed and successfully removed. We wish to emphasize the importance of considering this condition in the differential diagnosis of eclampsia. This is another case in which the recently introduced benzodioxan test[3] was positive and we stress the value of this drug during the operative procedure.

A 24 year old gravida-2, para 0, white female was admitted to Newark Beth Israel Hospital in active labor. She had a normal spontaneous delivery of a healthy male infant six hours later.

Past history and family history were irrelevant except for one miscarriage 18 months earlier.

During the last trimester of the pregnancy, she complained for the first time of a sudden severe, throbbing headache over the right temporal region lasting about one hour. There was some nausea but no vomiting. She had three recurrences that month. On the assumption that these episodes represented allergic headaches, the patient was placed on pyribenzamine and exclusion diets with only some questionable relief. Three weeks later, the pulse rate was 122, the hands were warm and moist, a slight tremor was noted and there was suggestive enlargement of the thyroid gland. A clinical diagnosis of hyperthyroidism was made and the patient was placed on Lugol's solution with partial relief. Blood pressure throughout pregnancy never ranged above 130/74. Edema or albuminuria had never been noted throughout the antepartum period. There had been a weight loss of five pounds in the last month of pregnancy.

Five days after delivery, she again complained of sudden, severe, intermittent, throbbing right temporal headaches associated with a feeling of faintness. The following day the symptoms continued but in addition for the first time she had a convulsive seizure which lasted about ten minutes. Later that day, one of us (M. C. B.) examined the patient after another convulsive seizure and the following findings were noted.

She was a fairly well nourished, well developed anxious appearing female, perspiring profusely, complaining of pain in the right frontal area and in the posterior nuchal region. There was some nuchal rigidity. Pupils were equal and reacted to light and accommodation. External ocular muscles were normal. There was slight lid lag and poor convergence. Eye grounds were negative except for anteriolar spasm. Ears, nose and throat were not unusual. There was no evidence of recent or old trauma to the tongue. Examination of the neck revealed no thyroid enlargement, distended neck veins, bruit or lymphadenopathy. Lungs were clear throughout. Heart was normal in size. Sounds were of good quality. There were no murmurs. Pulse was 168 and monotonously regular. Blood pressure was 180/130. Right carotid sinus pressure restored the rate to 96 and the blood pressure to 124/80. The abdomen was not unusual. Neurologic examination was negative. Differential diagnosis at that time rested between pheochromocytoma, post-partum eclampsia, cerebral hemorrhage or neoplasm and idiopathic epilepsy.

Blood count revealed a hemoglobin of 115 per cent (Sahli), 5.48 million red blood cells, 11,200 white blood cells with a differential of 13 nonsegmented polymorphonuclear leucocytes, 61 segmented polymorphonuclear leucocytes, 20 lymphocytes, 3 monocytes, 2 eosinophils and 1 basophil. Several urinalyses revealed adequate concentration and dilution but on two occasions 300 milligrams per cent and 80 milligrams per cent of albumin and a rare red blood cell were noted in catheterized specimens. Urinalyses on other days were negative. Spinal tap was negative in reference to dynamics and chemical determinations. Blood urea nitrogen was 9 milligrams per cent, non-protein nitrogen 30, total protein 7, carbon dioxide combining power 43 volume per cent and uric acid 4 milligrams per cent.

Repeated neurologic examinations and a normal spinal tap mitigated against the diagnosis of a cerebral tumor or hemorrhage. Although there were convulsions, intermittent hypertension and intermittent albuminuria in a post partum patient, the fact that she was atypical, had no pre-eclamptic state and did not respond to therapy tended to rule this out. Because of a continuation of the characteristic history of headaches associated with profuse perspiration, tachycardia and hypertension, the diagnosis of pheochromocytoma became more convincing and a series of confirmatory tests were carried out.

Massage of the left kidney for five minutes caused no change in the patient's resting blood pressure

* From the Beth Israel Hospital, Newark, N. J.

of 130/104. Right kidney massage, however, was followed by a severe headache and elevation of the blood pressure to 230/160. Histamine base (0.05 milligrams) was injected intravenously and gave a characteristic positive response (fig. 1). The control cold pressor test was normal. Right kidney massage again elicited a positive response (fig. 2). An intravenous pyelogram was reported as normal. The hypertensive episodes were occurring so frequently and the patient's condition was so critical that it was felt that further delay might be fatal and that operation was imperative.

While the patient was being positioned for surgery, she developed another hypertensive crisis.

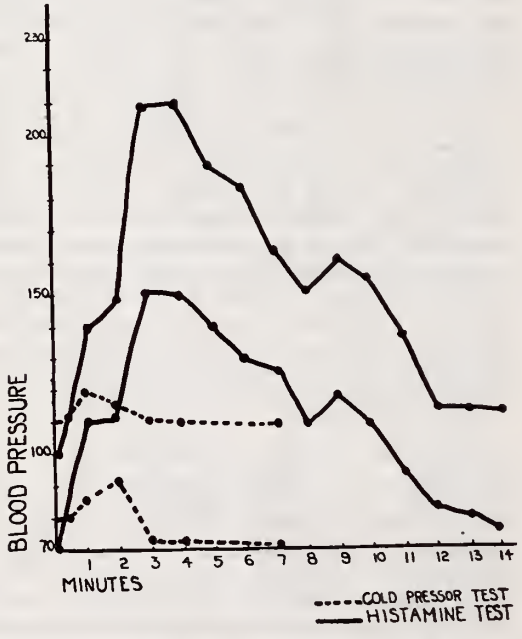


Figure 1. Histamine test and cold pressor test (9-16-48). The histamine test reveals a characteristic positive response with a rise in blood pressure from 100/70 mm. Hg. to 210/150 mm. Hg. The cold pressor test is negative and excludes a labile hypertensive reaction.

Seventeen milligrams of 933-F† (2-(1-piperidylmethyl)-1,4 benzodioxan, was administered intravenously resulting in a prompt fall in blood pressure (fig. 3). This served as another confirmatory test. Following this one of us (C. M. R.) performed the surgery. Under ether anaesthesia the right twelfth rib was subperiosteally resected and the anterior end of this incision was carried downward to split the oblique muscles. Even before the overlying fascia was opened a large hard tumor could be palpated above the right kidney. On exposure it was firm, about the size of a lemon and revealed many dilated surface veins. With a minimum of manipulation of the tumor these veins were ligated and all further attachments of the tumor divided. The tumor was then shelled out and bleeding controlled by ligation and oxycel pack. Immediate exploration through this flank incision failed to disclose other tumor masses. The wound was closed anatomically without drainage. During the surgical extirpation, benzodioxan had again been administered because of a dangerous hypertensive episode and was again followed by a prompt fall in blood pressure (fig. 3). Report of the pathologist revealed this tumor to be a pheochromocytoma.

Postoperatively the patient was maintained with adrenal cortical extract and sympathomimetic drugs in adequate doses for 48 hours until she was able to maintain her blood pressure. Subsequent course

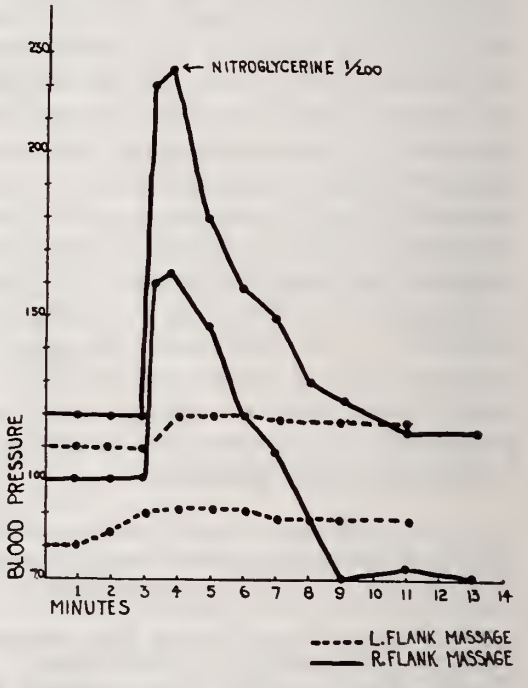


Figure 2. Flank massage (9-16-48). Massage of the left flank elicits no response. Right flank massage elicits a positive response with a rise in blood pressure from 120/100 mm. Hg. to 225/160 mm. Hg. This acts as a confirmatory test and a method of localization.

was uneventful except for three days when a diastolic gallop was heard at the apex. Electrocardiograms revealed ST depressions in leads 1,2 and CF4 suggesting left ventricular strain. Headache had completely disappeared. Blood pressure remained at normal levels. The day prior to discharge another histamine test was performed and found to be positive. Ten days after operation, she was discharged symptom free.

Review six weeks later revealed that the patient had no recurrence of headaches. The anxious expression had disappeared. There had been a weight gain of eight pounds. Blood pressure remained at 104/70. She was actively engaged in caring for her newborn infant.

Since the discovery of our case Bartels and

† The 2-(1-piperidylmethyl)-1,4–benzodioxan or 933–F was kindly supplied by Dr. A. Gibson of Merck and Company, Rahway, N. J.

Kingsley[5] have cited a similar problem in a 24 year old female who during the third month of pregnancy was noted to have hypertension and uterine bleeding. In the fourth month she suffered failing vision and in the sixth month developed convulsions and coma. After evacuation of a dead fetus the hypertension still remained. This was considered to be a severe case of eclampsia until six months later when the etiology of the condition was discovered. The outcome of the case we report, in

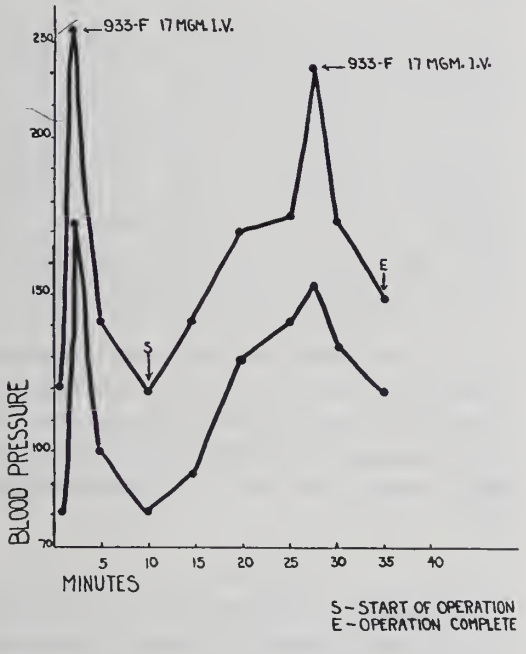


Figure 3. Response to 933-F (9-20-48). The first peak is prior to operation and reveals the prompt response to 933-F. This is another diagnostic test. The second peak occurred during the extirpation of the tumor and reveals the value of 933-F during the surgery of pheochromocytoma.

direct contrast to that of Bartels' and Kingsley's, serves to emphasize how important early correct diagnosis is. Although pheochromocytomas may be found at any age, they are most common between the ages of 20-40 years (the child bearing period). This makes it imperative to consider pheochromocytoma in every atypical eclampsia. The relationship which pregnancy may have had to this tumor is speculative, although it is known that pregnancy does accelerate the growth of some tumors. It would be simple to consider it as coincidental since these tumors are most common in this age group but only the discovery and study of greater numbers will shed further light on this subject.

The diagnosis is simple and depends upon a high index of suspicion to be confirmed by the use of kidney massage, certain pharmacologic tests, pyelograms and perirenal insufflation. Kidney massage by producing a typical paroxysm of hypertension is important in substantiating the diagnosis and at times in localizing the tumor, as it proved to be in this case. Kidney massage as well as other stimulative tests needs a certain amount of caution. One should always have nitroglycerine or amyl nitrite pearls available to counteract the dangerous hypertension, once the positive result is obtained.

Many pharmocologic tests have been introduced for the diagnosis of pheochromocytoma, namely: (1) the histamine test,[6] (2) the tetraethylammonium bromide test,[7] (3) the mecholyl test,[8] (4) the epinephrine insensitivity test,[9] and (5) the benzodioxan test.[3] The first three depend upon pressor action to induce a spontaneous discharge of epinephrine from the chromaffin tissue, causing a marked rise in blood pressure. This is in contrast to normals where there is usually a drop in blood pressure. The histamine test was used here because of our greater familiarity with it. The epinephrine insensitivity test depends upon the observation that a patient with a pheochromocytoma will tolerate large amounts of epinephrine without a resulting hypertension. The benzodioxan test employed here is based upon the fact that benzodioxan in tolerable doses is adrenolytic and will cause a drop in blood pressure when the hypertension is due to an increase in circulating adrenalin. Normals and hypertensives on the other hand show a pressor response.

A flat plate of the abdomen and intravenous pyelograms are important diagnostic procedures because in most cases[10] they will show evidence of a tumor. Where there is still doubt, perirenal insufflation is helpful in localizing the tumor and in possibly revealing its bilaterality.

The differential diagnosis usually considers Penfield tumor[11] in the third ventricle,

other causes of convulsions, hyperthyroidism, diabetes and malignant hypertension. We now add pheochromocytoma as another important differential diagnosis in atypical eclampsias.

Many of these patients are thought to be hyperthyroid before the true diagnosis is reached clinically or at post-mortem examination. Adrenalin *per se* has a marked calorigenic effect. It is a metabolic stimulant, increasing oxygen consumption and capable of raising the basal metabolic rate 30 per cent.[12]

The positive histamine test postoperatively was somewhat alarming and may mean that the patient may have some functioning chromaffin tissue elsewhere. It is known[13] that these tumors may be multiple and MacKeith noted that 10 per cent are bilateral in the adrenals. It must be stated however that the followup is very encouraging and mitigates against this possibility. Soffer[15] states that the histamine test postoperatively may be positive without other evidence of functioning chromaffin tissue. If the patient develops hypertensive crisis again or possibly a sustained hypertension, fortified with the knowledge already gained, we will be in a position to re-evaluate her and if necessary re-explore.

The surgical approach to these tumors is usually through a flank incision when the localization is exact. If it is impossible to determine the exact site of the tumor, laparotomy is the approach of choice so that both adrenals, the sympathetic chains, and Zuckerkandle's organ may all be investigated.

In reference to the pre-operative, operative and postoperative medical care of these patients, there looms two important considerations; (1) prevention of fatal hypertensive episodes during the extirpation of the tumor and (2) the danger of profound postoperative shock which is often the accompaniment of the removal of these tumors. Prevention of fatal hypertensive episodes is usually controlled by the use of amyl nitrite pearls to be placed under the mask during the inhalation anaesthesia. In this case we used benzodioxan with prompt and satisfactory results. Its antagonistic action usually lasts from 15 to 20 minutes and it is suggested that it be used prophylactically during the surgery of all cases of pheochromocytoma.

The danger of postoperative shock is met by blood or plasma transfusions and adrenal cortical extract pre-operatively. Spinal anaesthesia is never used for the operation because of its depressing effect on the blood pressure. Immediately after the removal of the tumor, adrenalin in oil is given intramuscularly and during the first 48 hours postoperatively adrenalin or other sympathomimetic drugs are administered subcutaneously in doses depending upon the patient's blood pressure response. Adrenal cortical extract is also administered. Usually in 24 to 48 hours these patients are able to maintain their blood pressure at safe levels without the need for further medication.

SUMMARY

1. A patient with post-partum convulsions in whom the diagnosis of pheochromocytoma was made is reported to emphasize the necessity of considering this tumor in any atypical case of eclampsia.

2. The diagnostic approach is discussed.

3. The value of benzodioxan as a diagnostic test and a useful adjuvant during surgery is stressed.

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AORTIC THROMBOSIS *
A CASE REPORT

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Acute occlusion of the aorta is not a great rarity, most cases being a result of embolism. However, obliteration by thrombosis is rare. The symptoms and course are variable, depending on the site, the rapidity of formation of the thrombus, and the degree of occlusion. Acute thrombosis with rapid occlusion can occur, generally at the site of an atherosclerotic plaque. In such instances there is a sudden paraplegia which is more or less complete, accompanied by sensory disorders and massive gangrene, according to whether death occurs early or late. Prognosis is usually bad. In these cases the differential diagnosis between thrombosis and embolism is very difficult.

Thromboses which develop slowly do not show so clear a picture and may not be detected clinically for some time. There may be "intermittent claudication" resulting sooner or later in paraplegia or disorders of gait and sensation. Frequently in the male there is an inability to maintain a stable erection, the blood flow being insufficient to fill the spongious processes. Leriche [1] and Leriche and Morel [2] reported this "new syndrome" which had a long course and presented "for a long period symptoms of no meaning for the physician, unpleasant as they may be for the patient. It may remain compatible for years with a seemingly normal life."

In 1926, Kriticos [3] described ten cases of aortic thrombosis in his thesis. Tschervakoff [4] in 1927 reported 23 cases which he collected and mentioned 25 others described by Hesse. DeGirardier and Stricker [5] and Dragescu and Petrescu [6] added other cases.

Usually atherosclerosis is the cause of the formation of the thrombus. However, Wheler [7] in 1921 reported a case following a pneumococcal infection and Marcus [8] in 1932 presented a case in which no underlying cause could be ascertained.

Following is a report of acute aortic thrombosis which occurred in a patient convalescing from a myocardial infarct and which was confused with "saddle embolism".

A 55 year old white male, reported that he had been having intermittent substernal pain on exertion which was relieved by resting. On November 9, the pain was more severe than usual and persisted for over an hour. He did not experience any subjective symptoms of shock, but much bloating and eructation were associated with the pain. An electrocardiogram taken on November 11, revealed a sinus rhythm with a rate of 83, ventricular extrasystoles occurring every fourth beat. The ST segment in Lead I was slightly depressed and the segment in Lead III was slightly elevated. T_1 was inverted; T_2 was of low voltage. There was beginning inversion of the T wave in CF_2 and marked inversion in CF_4, CF_5 and CF_6. In spite of a normal sedimentation rate (7 mm/hr by the Cutler method) the patient was advised that a myocardial infarct was strongly suspected and complete bedrest was instituted at home. Medication consisted of a capsule containing papaverine hydrochloride, 0.12 grams; novatrine, 2.5 milligrams; and phenobarbital, 15 milligrams, taken four times daily. During the next three weeks, except for occasional distress (which was controlled by 50 milligrams of demerol every four hours when necessary) the patient progressed satisfactorily. The extrasystoles disappeared on the second day without the benefit of quinidine sulfate. On December 2, another electrocardiogram was taken and a sedimentation rate was done. This electrocardiogram revealed a sinus rhythm with a rate of 91. The R wave was absent in CF_2 and CF_4. The ST segments in CF_2 and CF_4 were elevated. There was T wave inversion in Lead I, CF_2, CF_4, CF_5, and CF_6, confirming the diagnosis of an anteroseptal infarct. The sedimentation rate was 10 millimeters per hour.

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At 11 p. m., December 3, the patient was awakened from his sleep and complained of numbness of both legs. When this numbness did not respond to massage, the patient's wife called one of us, (J. A. R.). When the patient was seen at 11:30 p. m., (30 minutes after awakening) the numbness still persisted, sensation to pain was decreased, the toes were waxy in color, the lower extremities were cold, the femoral, popliteal, posterior tibial, and dorsalis pedal pulse could not be obtained nor could any pulsations of the needle of an anaeroid sphygmomanometer be detected. Saddle embolism was considered and the patient immediately hospitalized. During the next two hours while preparing the patient for embolectomy the patient experienced a great amount of pain in his buttocks, and lower extremities which could not be relieved by frequent doses of morphine sulfate. The skin became very hyperesthetic, and covered with livid areas. A definite line of demarcation of color and temperature developed at the level of the crests of the iliums. A prothrombin time by the modified Quick method was 12 seconds (100 per cent). Dicumarol[10] 300 milligrams by mouth, heparin, 50 milligrams intravenously every four hours, and papaverine hydrochloride, 200 milligrams intramuscularly every four hours, was ordered.

At 3 a. m. on December 4 (under sodium pentothal, curare, and nitrous oxide anesthesia) operation was performed by Dr. John Haney and Dr. D. Leo Haggerty. Through a subumbilical midline incision, the aorta and common iliacs were exposed and clot was palpated at the bifurcation of the aorta and in the common iliacs. The vessels were freed and elevated by means of tapes and the left common iliac artery was opened at the bifurcation. The clot was removed by canula and suction until free bleeding occurred. The bleeding from the upper aorta was controlled by heavy pressure from the tape. The vessel was closed and the abdominal cavity closed in layers. Following this an epidural block using pontocaine anesthesia was performed.

At 8:00 a. m., the patient's red cell count was 4.7 million and hemoglobin was 14 grams. The urine showed three plus albumin and many granular casts. The pulse rate was over 140 and the blood pressure was 170/100. Since the onset of the patient's illness the systolic pressure had been between 130 and 140. A gallop rhythm was heard. The thighs were warm to just above the knee. Below this the lower extremities were cold and mottled. Pain was severe. The patient was placed in an oxygen tent and digitalized. Continuous epidural block was started. The gallop had disappeared by 11:15 p. m., and the pulse rate dropped to 120. A definite line of demarcation for temperature and color appeared in mid-thigh. Pain was uncontrollable. At 10:00 a. m. on December 5, there was no change in the patient. By 2:00 p. m. tachycardia was becoming more pronounced and the patient was sweating profusely. Renal function was very poor. Blood pressure was 150/98. On December 6 at 2:30 a. m. the patient became very restless and began to vomit a small amount of brown fluid. He was totally disoriented by 4:00 a. m. and was still vomiting, the vomitus containing some fresh blood. The pulse rate was 160. At 6:40 a. m. the patient died.

Dr. David Eckstein performed an autopsy. The legs were pallid and showed no evidence of gangrene or discoloration. The endocardium appeared normal with no mural thrombus. The myocardium had extremely poor tone and in the region of the apex, anterior wall, and the related portion of the intraventricular septum a marked thinning and a greasy yellow discoloration was found. The anterior descending branch of the left coronary artery showed a marked amount of sclerosis and (although no thrombus was found) the lumen was markedly contracted and blood was expelled only with difficulty. The arch and thoracic portions of the aorta showed no unusual changes. The abdominal aorta was markedly sclerotic and showed numerous ulcerations of the intima overlying calcified plaques. Beginning at the bifurcation and extending into both common iliacs was an organizing thrombus which was adherent to the walls of the vessels. This thrombus extended well into the femoral artery on the left. In the left common iliac artery was a surgical incision closed by three catgut sutures. Anatomic diagnosis was acute myocardial infarction of the anterior wall and intraventricular septum, atherosclerosis of the aorta and common iliac arteries with thrombosis.

Obstructive thrombosis of the aorta is never a primary condition; every case has some basic factor as a result of which there are some disturbances in the circulation.[4] Usually such primary factors are found in diseases of the heart and aorta. In this case both the heart and the aorta were pre-disposing factors. Because of the myocardial infarction the patient was placed at rest, slowing the rate of blood circulation. This, coupled with the atherosclerotic aorta provided the factors necessary for thrombus formation. Anticoagulant therapy was overlooked in this patient because of the fact that progress seemed very satisfactory and the patient was at home, though it is feasible to follow the prothrombin percentage. Whether such therapy would have prevented the thrombosis in this case is conjecture for after the original thrombus had been removed and anticoagulant therapy instituted, thrombus formation continued.

Even though embolism was the most logical cause of the obstruction, one of us (P. H. C.) strongly considered thrombosis because of the relatively slow onset. It was a matter of hours

before the signs of complete obstruction were present—most notably, the pain. Though pain as a result of embolism may develop gradually, it does so much less frequently than in thrombosis. Allen and Barker [9] classify occlusions which develop in one to five hours as subacute, reserving the acute classification for those cases in which symptoms develop fully very suddenly. Cases of thrombosis generally fit into the former classification.

SUMMARY AND CONCLUSION

A case of myocardial infarction with complicating aortic thrombosis is presented. This case emphasizes the advisability of the routine use of the anticoagulants in all cases of coronary occlusion and/or myocardial infarction.†

1757 South Broad Street

NEW KNIFE FOR CERVICAL CANCER

MORRIS JOSEPH, M.D., Passaic, N. J.*

The cancer propaganda of press and radio during recent years has produced a great state of nervousness and fear amounting to a real cancerophobia. Particularly is this true of women. But as Berkeley once said: "It is better to be nervous than dead". This publicity has brought many women to physicians' offices for consultation at the slightest provocation of bleeding or discharge from the vagina, to which they would have paid little heed a few years ago.

Carcinoma of the cervix, while not visible to the patient, is readily detected by any experienced practitioner equipped to make a thorough gynecologic examination.



It has been stated that 16 out of every 1000 women have cervical carcinoma. While the disease usually occurs and increases at 35 and over, it has occurred in younger individuals and has been reported even in childhood and in the second decade.

The routine vaginal examination will often reveal the early proliferative type such as the cauliflower or papillary variety. The early infiltrating type, however, which often disseminates more rapidly and is therefore far more devastating, is much more difficult to detect in its early stage.

The Papanicolaou method of staining and detection of cancer cells has been a great aid in cases where no real lesion is apparent on speculum examination. It is generally agreed that a positive stain (certainly if repeated) is of great value. The negative test, on the other hand, still leaves doubt and necessitates further investigation.

Even with a positive stain, pathologists and surgeons are in accord on the confirmatory value of the biopsy of real tissue. Certainly where there is the slightest suspicion of cervical discharge, with a negative Papanicolaou, an actual section of tissue from the cervix is of material value.

Fifteen years ago I designed a knife for the Sturmdorf operation to replace the original Sturmdorf knife which seemed too frail and inadequate for cervical work. Cervical tissue is tough fibrous tissue, often bordering on the cartilaginous. For this reason, it was felt that a sturdy knife, preferably with a double-edge and a spear point with a curvature, permitting the use of an arc incision was desirable.



The blade followed in pattern that of the grapefruit knife except for the spear point and the ridge down the center to add strength. In addition, the ring was introduced between the

9. Allen, E. V., and Barker, M. D. Tice: *Practice of Medicine*, Hagerstown, Md., W. F. Prior Co. Inc., 6:4 (1940).

10. Dicumarol is the registered collective trademark of the Wisconsin Research Foundation which controls the use thereof.

* Senior Attending Surgeon, Passaic (N. J.) General Hospital.

† The authors wish to thank Miss Catherine Jachetti for technical assistance.

blade and the handle such as is present in the old De Lee uterine curette. The handle was that of the regular curette.

The instrument is 9 inches (22 centimeters) long over all, allowing adequate length for all types of cervical work through the vagina as well as coning out the cervix through the abdominal approach during supracervical hysterectomy. The blade is 2¾ inches (6 centimeters) long, sufficient to include the entire length of the cervix from external to internal os. The double edge with its curve allows a complete semicircle to be made in the anterior or posterior lips without withdrawal. The De Lee ring permits a firm grasp by the introduction of the index finger for extra leverage and cleaner enucleation.

I have found this instrument of value in all types of cervical repair and excision over the past fifteen years. The marked increase in interest of cervical cancer, however, prompted its description and introduction at this time. It can be used in the office where, under local anesthesia, small sections of cervix can be removed for biopsy without the destructive effect produced by the radio knife or cautery.

Ayre [1] has described a special knife for cases of cancer of the cervix. This is a great improvement over previous instruments for this purpose.

The knife I am presenting has still added features to facilitate work on the cervix as described above. It is safe and easy to handle. It is strong and sturdy and the ring feature offers security and leverage which are so important in dealing with this organ.

271 Lexington Avenue

PHOTOGRAPHS OF MEMBERS

Members of The Medical Society may soon receive a visit from Mr. Joseph Merante, who has taken photographs of all the Trustees, Officers and Fellows, and who is engaged at present in securing photographs of the members of the Society for the files of the Executive Offices. The Executive Offices are anxious to secure a file of photographs of all members so that these may be available for making cuts and slides when needed for the Society's activities. There will be no charge to the physician for the single photograph taken for the Society's files, nor will there be any obligation to purchase photographs for personal use from Mr. Merante.

HONOR TO DR. ORTON

The Casselberry Award of the American Laryngological Association was this year awarded to Henry Boylan Orton, M.D., of Newark, a member of The Medical Society of New Jersey, for his thesis *Laryngectomies and Laryngopharyngectomies.*

1. Ayre, J. Ernest: Journal of the American Medical Association, 138:11 (September 4, 1948).

DR. NORTON ELECTED VICE-PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION

For the first time in the history of The Medical Society of New Jersey, our president will serve simultaneously as head of our state society and as vice-president of the American Medical Association. The Medical Society of New Jersey is proud of the national recognition thus accorded our president, congratulates Dr. Norton on his entry into the high command of the American Medical Association and felicitates the A.M.A. on having Dr. Norton as one of its leaders.

N. J. COLLEGE OF CHEST PHYSICIANS

The New Jersey Chapter of the American College of Chest Physicians held its annual meeting in Atlantic City on April 28. The following officers were elected for the ensuing year:

President—Homer H. Cherry, M.D., Paterson
First Vice-Pres.—Joseph A. Smith, M.D., Glen Gardner
Second Vice-Pres.—Juan R. Herradora, M.D., Jersey City
Secretary-Treas.—Benjamin P. Potter, M.D., Jersey City

VERRUCAE PLANTARIS: A RESUME

Howard K. Schwarzfeld, M.D., Newark, N. J.

Verrucae plantaris are common warts modified by their location in the thick skin of the soles. They are horny, translucent or opaque yellowish papules usually set deeply into the skin. The ordinarily inconsequential common wart is transformed into a lesion of immoderate annoyance because of its location and resistance to therapy.

Verrucae are due to a filterable virus. They are infectious as demonstrated by scratching the skin with material from a wart.

Verrucae tend to occur in younger individuals perhaps because of their increased susceptibility to all infections of the skin. Structural deviations of the feet as pes planus, and to a lesser extent, pes cavus, are notoriously more susceptible to plantar verrucae over points of pressure. In structurally normal feet, trauma may play an important role as shown by the increased incidence (about five to one) of plantar warts in the female. These occur on the anterior portion of the foot since, (because of high heels) there is four times more pressure on the toes and metatarsal heads.

Histologic examination shows the same microscopic features as a verruca vulgaris but with changes due to pressure. The epidermis is thickened with outstanding increase of horny layers that seem to press in on the epidermis. The prickle cells show perinuclear vacuolation and may contain inclusion bodies.

Plantar warts can be confused with corns and calluses as well as such rarer lesions as arsenical keratosis, congenital keratosis palmaris and plantaris, keratosis blennorrhagica and climacteric hyperkeratosis. The callus is an area of increased horniness of the skin that may be sharply localized or diffuse. The papillary skin lines show no break in continuity. Calluses are often symptomatic and occur over areas of friction and pressure. A corn is a further development of a callus having a central conical horny mass with the base externally and its apex pressing against cutaneous nerve endings. The corn is composed of nucleated horn cells in a laminated arrangement. In the intertrigenous areas, corns may be soft, due to maceration. They are caused by pressure and are not related to dermatophytosis.

The average plantar wart if of any duration is usually *in* the skin rather than *on* it. It is often a deep lesion and at its depth it may be 5 to 8 millimeters below the skin surface. Plantar warts are painful and frequently are found in pressure areas as under the metatarsal heads, heels, toes, etc. They are encircled by a zone of callus, separated by a sharp border. The papillary skin lines swing widely around or abruptly end at the margin of the wart.

These verrucae are of three major subvarieties:

1. The *mosaic* variety is composed of multiple "pressed-together" or agglutinated verrucae elements. They are dry horny masses, frequently asymptomatic, and have an irregular border. They often occur under pressure points. The closely packed-together wart elements are revealed by paring.

2. The *mother-daughter* subvariety can occur in any location on the sole and consists of an older central large element with smaller, younger satellites.

3. The *single* type is the common painful variety situated under a pressure point as a metatarsal head, sharply delineated and having a zone of surrounding callus. An extremely painful corn upon paring occasionally shows the capillary tips of a verrucae. Such a verrucae in a corn is an unusual type and, where found, is on the fifth toe.

The less there is known about a disease, the more the number of treatments recommended. For verrucae, an encyclopedic list of treatments is available and the numerous remedies proves that none is sovereign. Caustic destructive therapy whether by acids, radiation or electrosurgery is the basis for most treatment methods.

X-ray is one of the preferred modes because it is painless and easy; the skin is not broken; and requires no dressings or loss of time. The requisite special equipment and training necessary for this treatment, limit its use to properly qualified therapists. Sequelae to radiation therapy are rare (if the proper precautions are observed) if any wart pre-

viously treated by radiation is excluded from further exposure. This, despite the fact that the doctor may know the previously given radiation dose, he does not know the shielding technic observed by the previous operator.

Verrucae are radiosensitive but acquire radioresistance after successive exposures and therefore Montgomery and Montgomery [1] use an initial intensive dose to a very closely shielded pared lesion. Each wart is treated separately. They use unfiltered rays of 85 kilovolts. The initial dose is determined by the wart's size, depth, and horny coverings. Children and diabetics receive smaller doses. The initial dose is followed each ten days by a saturation dose that is 80 per cent of the previous dose. Close shielding is important. The usual regime consists of three or four treatments with a cure rate of 90 per cent.

An infrequently used treatment is the injection of sclerosing and other solutions directly into the base of the wart. One to three minims of solution are used for each wart. This is often successful but is painful and dangerous. Cameron [13] cites the severe local and systemic reactions from local injection and warns against them.

Surgical excision is easy, requires a minimum of equipment, and is fairly efficient. The greatest drawback is that recurrences are common. Postoperative pain and disability may be severe drawbacks. Karp [2] by her electrosurgical method reports cures in 94 per cent of cases. Under novocaine, a twisted electrode loop is thrust deep into the center of the lesion and rotated 180 degrees. The electrode is removed and only a linear incision remains. There is no bleeding due to vessel coagulation by the current. The crust is removed in about 10 to 14 days and healing is complete in another two weeks. The twisted electrode loop is very important for the usual plantar verruca is deeply situated and the loop must be plunged to the depth of the wart to be effective and any superficial treatment will certainly fail.

Blank [14] with his "phenol and nitric acid method" uses 60 per cent salicylic acid ointment, close paring, and a ring of felt. He is enthusiastic about this but in other hands it has been less effective. It is difficult to use because of the numerous reapplications necessary.

The mosaic type of plantar wart is radioresistant and the acid treatment is choice. A 40 per cent salicylic acid plaster is applied after painting with caustic monochloracetic acid. Or a piece of elastoplast can be applied directly to the lesion after painting with caustic.

Kurtin and Yontef [15] employ the escharotic action of podophyllin. After paring the lesion down until bleeding occurs, they paint the surrounding skin with collodion and then apply podophyllin suspension to the wart concavity. A flamed strip of adhesive tape is applied to seal in the solution and to cause maceration. A week later, the procedure is repeated. After several repetitions a painless hole occurs which heals in cleanly.

Numerous other modes of treatment are advanced by enthusiastic claimants who report effective results. Among these may be mentioned daily formalin soaks, carbon dioxide snow with heavy pressure, psychotherapy, Biberstein's wart vaccine, prolonged elastoplast application, and systemic medication such as Bismuth.

No matter what method is used, the proportion of recurrence will be high unless orthopedic care and correction are given along with treatment directly to the verruca. Women must wear low heeled shoes for most of the day and should reserve high heels for rare important occasions. Pes planus requires proper supports and correction. A metatarsal bar placed one-half inch posterior to the widest part of the shoe and projecting one-fourth of an inch is a good method for relieving pressure from the anterior part of the foot. Close and meticulous attention to details is necessary no matter what form of therapy is used in order to give the patient full and permanent relief.

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301 Stuyvesant Avenue

BILATERAL RUPTURE OF THE QUADRICEPS TENDON *

RAPHAEL R. GOLDENBERG, M.D., Paterson, N. J.

Bilateral rupture of the quadriceps tendon is not a common lesion. Review of the literature reveals that only eight cases have been reported.[1] Because of the six year interval between injuries, Graney's case [1] should not be classed as a bilateral rupture of the tendon. There is also an unreported case by Ernest [2] of a complete bilateral tear of the quadriceps tendon, successfully treated by surgery. Because of the meagerness of the literature, it is considered appropriate to add this case.

A male, aged 65, was first seen one hour after injury. He had heard and felt a loud snapping noise in both lower extremities, then fell, striking both knees on the road. Unable to stand, he was admitted to the hospital. Both knee joints were markedly distended. The knees were maintained at 135 degrees of flexion. Active extension was absent. The patient was able actively to contract the quadriceps muscle on each side, and at this time the palpable depression just proximal to the superior margin of each patella was appreciably widened.

At operation, five days after injury, a seven inch longitudinal incision was made. The quadriceps muscle, tendon, and lateral expansions were exposed. The lateral aponeurosis was irregularly torn for about half the circumference of each patella. There was a considerable amount of clotted blood in the knee, and this was evacuated. The quadriceps tendon was found to be extensively frayed and completely divided close to its junction with the patella. The lateral aponeurosis and quadriceps tendon were sutured with chromic catgut. The wounds were closed without drainage. Plaster encasements were applied from the groin to the malleoli, with the knees in complete extension. The plasters were removed three weeks after operation and quadriceps exercises were instituted. Four weeks after operation the patient began walking with the aid of crutches. He returned for final examination four months after operation with a very satisfactory result. He walked well and without a limp. Motion of each knee was complete. The patient was able to maintain each knee in complete extension against gravity and considerable resistance.

A rupture either of the patellar tendon or of the quadriceps tendon is caused by a similar trauma;[3] a sudden violent pull of the quadriceps muscle with the knee flexed and the foot fixed. The degree of flexion of the knee, and the age of the patient are the factors which determine the site of the tendon lesion, proximal or distal to the patella.

In all of the reported cases there was a strikingly similar history of trauma; a fall with the knee in flexion. There was a definite time interval (one-half hour to a few days) between the occurrence of the quadriceps tendon rupture in each knee. In the cases reported by Ernest and the author, the quadriceps tendons were apparently ruptured simultaneously.

The most significant clinical findings were loss of active extension of the knees, a palpable gap in the quadriceps tendon, and localized tenderness. Soft tissue roentgenographic examination demonstrated the fraying and solution of continuity of the quadriceps tendon.

The treatment is surgical repair of the divided tendon, with immobilization of the completely extended knee joint in a plaster encasement for three weeks. The end results of all reported cases have been satisfactory.

* From the St. Joseph Hospital, Paterson, N. J. Read at the Annual Meeting of the New Jersey Orthopaedic Society, October 9, 1948.

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588 East 27th Street

EMOTIONAL PRECIPITANTS OF DEATH

HENRY A. DAVIDSON, M.D., Flemington, N. J.

Can a person die of emotional shock? Physicians generally scoff at the idea that fright, grief, anger or other emotion can cause death. When poets sing of "dying of a broken heart", the doctor usually dismisses this as sentimental nonsense. At most, he cautiously agrees that, in the presence of a "diseased heart", an emotion which causes sudden rise in blood pressure might cause death. Yet in such cases, as Weiss [1] puts it, "Postmortem studies do not always give precise explanations of the mechanism of death. Why, with the same degree of structural damage, does death occur in one person and not in another?"

This unwillingness to recognize the emotional factor is rooted in the basic dichotomy of "organic vs. functional". This "either-or" idea still haunts medical thinking in spite of the many fine words written on psychosomatics. If a practitioner is satisfied that the pain, dyspnea, or other symptom is "hysterical" he heaves a sigh of relief and assures the family that "anyhow, it isn't serious and he won't die of it". And sometimes he's wrong.

All physicians now concede that emotional factors may alter organic function; that fear, rage or frustration may cause changes in tonicity, secretion or vascularity. Yet if function is persistently modified, structural changes are bound to follow. And then, with inexorable logic, one is forced to conclude that if emotions can cause structural changes, they may alter the structure to the point where the organ ceases to function. There is thus, no scientific reason why emotions cannot cause death.

Since death is the cessation of a somatic process, the final link must be a somatic one, even though the precipitating factor be emotional. Suppose a man has brittle arteries and high blood pressure, In a political argument he becomes excited, his blood pressure mounts; the fragile lenticulo-striate artery cannot stand the rising pressure and it blows out causing fatal apoplexy. What was the cause of death? On the certificate, the cause was "cerebral hemorrhage" or perhaps "hypertensive cardiovascular disease". But in another sense, the cause was rage, induced by a political argument which precipitated the fatal apoplexy. Indeed, it is not overdramatizing it to say that the patient was doomed to die because he had a certain kind of temperament (a temperament in which political matters were of great importance) plus the fact that he lived in a society where political discussions were common.

In most cases of emotionally precipitated death, the terminal process is a cardiac one. But other organs may be involved. A person may die of peritonitis produced by the rupture of a gastric ulcer. Emotional components in the development, maintenance and aggravation of stomach ulcers are well known. Stewart [2] demonstrated that during 1941 the frequency of perforation of peptic ulcers in London paralleled the pacing of air raids over that city. An air raid produces a poignantly helpless kind of rage. There were, thus, Londoners who were never touched by a bomb fragment or pinned beneath wreckage who, none the less, died because of air raids. They died because the air raids touched off emotions, and these emotions (operating through gastric hyperacidity or perhaps through gastric ischemia) caused a pre-existing ulcer to perforate.

People die of kidney disease. Emotionally induced albuminuria has long been recognized.[3] If transient emotional states can cause transient albuminuria, it seems reasonable to expect that prolonged emotional disturbances can cause prolonged albuminuria with consequent noxious effects on the permeability of the renal glomeruli.

If a person has been injured, the coagulability of the blood may be the determinant in his death or survival. And many authorities (see, for instance, De Takats [4]) have demonstrated

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2. Stewart, D. N.: Lancet, 1:259 (February 28, 1942).
3. Ahronhein, J. H.: War Medicine, 5:267 (May 1944).
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a relationship between emotions and clotting time.

Under certain conditions, a dying patient may be kept alive for a while by injections of epinephrine. Cannot a man give himself a sort of "internal" injection of epinephrine, when emotional activity whips up the suprarenal gland? Here is the possible explanation for the "will to live" or "will to die" which so many seasoned medical practitioners recognize as a critical factor in a sick person. Consider, for instance, a case cited by General Hawley.[5a]

". . . On his annual physical examination, the Army officer was found to have a small hernia. The operation was uneventful, but from the time he came out of the anesthetic, he did not react well. He died of a paralytic ileus. There had been no traction on the gut nor any other known reason for this complication. After he died, it was found that before he entered the hospital, he had carefully laid out his full dress uniform in which to be buried, and left instructions for his funeral."

And here is another recent citation on the same order. MacRobert[5b] writes:

"An apparently healthy woman in her early forties was admitted to the New York Neurological Institute because of a fixed idea that she was about to die. She knew no reason for her belief. She occupied a private room and was thoroughly examined. No clinical nor laboratory evidence could be discovered to give any basis for her premonition. She died suddenly one afternoon while still in the hospital. She was seen at once by doctors, but no explanation for her death was found at the moment or later."

When one member of an old and loving couple dies, friends are not surprised to hear that the other did not long survive. This may be due to the fact that both were reaching the end of their alloted life span. But it may also be associated with a collapse of the surviving partner's "will to live" and with the consequent somatic effects of this emotional change.

Scientists rarely give serious thought to the numerous stories of deaths associated with "voodoo curses" in the more primitive parts of the world. These may, indeed, be but the tall tales told by travellers, whimsical anecdotes without substance. Yet suppose a man, firmly convinced of the efficacy of such magic, has been told that a foe has put a curse on him and that he is irretrievably destined to die. The victim languishes, fades away, dies. A controlled study of such incidents might well reveal that the victim's hopeless and monumental fear had paralyzed vital functions as surely as fear can paralyze salivary secretions. A serious account of a somewhat similar case has been recorded by Alexander[6] who tells of a 36 year old schizophrenic who abruptly announced that she was fated to die. She took to bed; temperature inexplicably rose. She died. Autopsy revealed no cause of death discernible to the autopsy knife or to the pathologist's microscope. The analogy to the primitive man with faith in voodoo is compelling.

Sudden cardiac deaths are associated with syncope. As Markowitz[7] puts it, "sudden death is only fatal syncope". The physiologic basis of syncope is dilatation of splanchnic vessels; or squeezing blood out of central vessels. This is mediated through the autonomic nervous system which certainly can be influenced by emotional factors. Here we see an unbroken (if indirect) chain from emotional causes to actual death. Henderson[8] reaches the same conclusion by a different route. As he says, without tonus, life ceases. Tonus is dependent on the integrity and balance of the autonomic nervous system. Venopressor reactions may thus be conditioned by mental and emotional factors. Even simple thinking induces changes in cerebral circulation and thus causes readjustment in blood volume distribution throughout the body. In the face of powerful emotion, such changes will be more abrupt, more extensive, more hazardous to the body economy.

Moschowitz[9] asserts categorically that the association of intense emotion with myocardial death is "not coincidence, but cause and effect". And Kaunitz[10] in an article aptly entitled "The Broken Heart" points out that vascular spasm

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5b. MacRobert, Russell G.: Journal of Insurance Medicine, 4:2 (April 1949).
6. Alexander, George H.: Psychosomatic Medicine, 5:188 (April 1943).
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may be due to the everyday buffeting of tense urban existence.

Of the destructive emotions, fear and rage are the ones that exercise their somatic effects most quickly. Wolf [11] has demonstrated that fear will make the gastric mucosa pallid and dry, whereas resentment and repressed aggression cause hyperemia and hypermotility. In the presence of a large ulcer, either of these processes may precipitate a rupture. The fear does this by way of ischemia, the rage reaction by way of a dangerous hypermotility; and both of them cause some hypersecretion. The same emotions may exercise an even more dramatic effect on the heart. In emotionally induced cardiac death, the heart usually stops in systole, after a vain effort to pump out some blood that isn't there; blood that has been drained into the splanchnic bed as a result of the effect of the emotions on the autonomic nervous system. Or perhaps the drainage of blood into the tissues has been caused by overproduction of epinephrine.

There is no evidence that epinephrine plays a material role in sudden cardiac death. However, we do know that emotion causes an outpouring of this hormone and that this, in turn, increases both the heart rate and the blood pressure. Under "normal" conditions, an increase in heart rate means a fall in blood pressure. Under emotional stress, both rate and pressure go up. Epinephrine excess can account for this apparent paradox. Cannon's classical experiment on denervation of the heart (and resulting tachycardia when the animal is frightened) does lend some support to this thesis; though it might be argued that fright, by itself, could cause dilatation of splanchnic vessels and resultant drainage of blood out of the heart, without the intervention of epinephrine. In either event, result is the same: emotion may lead to stoppage of the heart in systole.

Prolonged frustration can hardly produce the swift and tragic effects of a single shocking fear or rage reaction. But in terms of its long range destructive properties, frustration is probably the most dangerous emotion in the list. Prolonged frustration means, after all, a continuous damming back of rage reactions. Most of the body systems have open ends, so that mounting pressure within the system can find expression by "blowing out" at the open end. Mounting tensions within the gastrointestinal tract could be expressed by vomiting or diarrhea; in the respiratory tree, by dyspnea and "asthmatic" attacks; in the urinary system, by polyuria. However, the cardiovascular tract is completely closed, and if mounting tension develops, there can be no benign explosion at the open end of the tract. The tension must be expressed by increased intravascular pressure; and when it reaches the explosive point, by rupture of an aneurysm or cerebral vessel.

This is the basis for the well meant advice "Take it easy—remember your blood pressure". Too few physicians consider it any of their business to teach the patient *how* to take it easy. The advice, therefore, is usually sterile.

The case for the emotional precipitation of death seems well established. The doctor can scarcely carry on his role as preserver of life without giving serious thought to the recognition, analysis and control of noxious emotional factors. Rage and fear, fright and frustration, are not only threats to peace of mind—and thus of interest only to the psychiatrist. They are, rather, potentially destructive to life itself and thus of concern to all practitioners of medicine.

R. D. 2, Flemington, N. J.

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NEW JERSEY ACADEMY OF GENERAL PRACTICE

At the annual meeting of the New Jersey Academy of General Practice the following elections were announced: President—Aaron H. Horland, M.D., Newark, President-Elect—Sidney D. Becker, M.D., Keyport, Vice-President—Theodore Silverman, M.D., Elizabeth, Secretary-Treasurer—Edwin Rosner, M.D., Collingswood.

Board of Directors—1951: M. A. Flower, M.D., Newark, Samuel Diech, M.D., Passaic, H. A. Monaloy, M.D., Passaic.

Delegates to the 1950 St. Louis Convention of the American Academy of General Practice: S. L. Kaman, M.D. (Past President), A. H. Horland, M.D.

The Hospital Committee will send representatives to all general hospitals of New Jersey to encourage the establishment of general practice sections in accordance with the policy of the A.M.A. and the Medical Society of New Jersey.

STATE ACTIVITIES

BOARD OF TRUSTEES
APRIL 28, 1949

The reorganization meeting of the Board of Trustees was held at The Ambassador, Atlantic City, April 28, 1949. An abstract of the actions taken follows:

1. Dr. L. Samuel Sica of Trenton was re-elected Chairman for 1949-50.

2. Dr. Elton W. Lance of Rahway was re-elected Secretary for 1949-50.

3. Salaried personnel were re-employed at the figures provided in the 1949-50 budget.

4. Proposed program of the Woman's Auxiliary for 1949-50 was referred to the Advisory Committee to the Auxiliary for approval, with the understanding that approval be granted this program insofar as it complies with the recently approved amendment to the By-Laws.

BOARD OF TRUSTEES
JUNE 5, 1949

The Board of Trustees met in regular session on June 5, 1949, at the Hotel Traymore, Atlantic City, and took the following actions:

1. Contingent upon full approval of the Medical-Surgical Plan Trustees, the Board of Trustees of The Medical Society approved the issuance of a direct enrollment subscription contract and any action that may be taken by Medical-Surgical Plan with respect to such contract.

2. Resolution on medical care of veterans and operation of Veterans Hospitals was referred back to the Board by the House of Delegates for further consideration. This is referred to the New Jersey A.M.A. Delegates without instruction.

3. 1950 Annual Meeting:

(a) Sections on Medicine and Surgery will meet at every Annual Meeting; the remaining 17 sections will alternate; those which do not hold sessions at the Annual Meeting will be privileged to hold sessions during the Fall Clinical Conference of that year.

(b) Sections will be limited to three speakers, not more than one from out-of-state; and will be held strictly to total time of 2 hours per section.

(c) The President, at the opening session of the House of Delegates will appoint a sergeant-at-arms to collect the attendance slips of the Delegates at each session.

(d) The advance announcement of the annual meeting program will be carried in the February or March JOURNAL. The Publication Committee is requested to allow eight JOURNAL pages for this program.

(e) The 184th Annual Meeting will open at Haddon Hall at 9 a. m., Monday, May 22, 1950, and close on Wednesday night, May 24.

(f) Dr. Aaron H. Horland of Newark was appointed chairman of the newly-established Section on General Practice, and Dr. D. Ward Scanlan of Atlantic City, Secretary.

4. Recommendations of the Medical Advisory Committee to the New Jersey Chapter of the National Society for Crippled Children and Adults, Inc., is approved. This includes fee schedule for consultative services; policy on clinics or outpatient training centers; reimbursement to physicians supervising such clinics; establishment of fellowships in cerebral palsy; establishment of project in field of reading disabilities due to word blindness, etc.

5. Approval of proposed Crippled Children Camp Association, to provide a summer camp for indigent crippled children.

6. Tentative approval was given the request for appointment of a medical advisory committee to the proposed Cerebral Palsy League of New Jersey; such committee to survey needs and facilities for the care of cerebral palsy throughout the state. The Board authorized the appointment of the requested Advisory Committee. This committee will report back to the Trustees.

7. Dr. William F. Costello, Dover, was re-elected a Trustee member of the Finance and Budget Committee for a term of 6 years.

8. Communication from the Chief Medical Director of the State Department of Labor, requesting the Society to study and present an x-ray fee schedule in workmen's compensation cases, to be put into effect in New Jersey, was

referred to the Advisory Committee on Radiology for recommendation.

9. Resignation of Dr. Frederic J. Quigley, Executive Secretary of Subcommittee on Legislation, effective May 31, 1949, was accepted; the Secretary was instructed to send Dr. Quigley a letter of commendation for his services to the Society.

10. Dr. James F. Norton, Chairman, Dr. William C. Wilentz, and Dr. Reuben L. Sharp were appointed a committee to make a survey of available candidates to fill the vacancy in the position of Executive Secretary of the Subcommittee on Legislation.

11. The Section on Urology will be the designation of the former Section on Venereal Disease Control, as recommended by the Section Officers.

12. Proposed surgical fee schedule for treatment of crippled children (sponsored by the Crippled Children Commission of the State of New Jersey) was referred to the Subcommittee on Public Health for consideration.

13. Bouquet will be sent to Mrs. David B. Allman of Atlantic City upon her installation as President of the Woman's Auxiliary to the A.M.A.

14. The Executive Officer is authorized to sign checks on the Society's Trenton checking account during the absence of Dr. Sica this summer.

15. A wedding gift is authorized for Miss Vera Barry of the Trenton staff.

SUPPLEMENTARY LIST No. 4 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows. (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Anderson, Richard D., 465 High st., Burlington (3)
Audi, Eugene H., 466 S. Maple av., Glen Rock (2)
Barnett, Jack, 388 13th av., Paterson (16)
Brady, Edward A., Jr., 11 Stone st.,N.Brunswick(12)
Brennan, Alfred T. V., Jr., 275 Engle st., Englew'd(2)
Brown, Joseph E., 2611 Center st., Mechantville (4)
Brozyna, Mieczyslaw, 194 Carlton av.,E.Ruth'rf'd(2)
Ciliberti, Frank J., 5th & Pine sts., Camden (4)
Colonna, Joseph A., 5016 Hudson av., W. N. Y. (9)
Cooper, Howard M., 37 Ridge rd., Rutherford (2)
Crisonino, Philip D., 26 Bentley av., Jersey City (9)
Davis, William A., 270 Ridgewood av., Glen Ridge(7)
Denholtz, Emanuel, 16 Harrison pl., Irvington (7)
Dren, George W., 191 Lexington av., Passaic (16)
Duckett, Warren J., 21 Carlton av., Jersey City (9)
Farmer, Vincent, 430 Union st., Hackensack (2)
Feeney, Edward, 156 Pompton Tpk., Pequanock(14)
Fidler, Jay W., Jr., 144 Hazelw'd ter., Plainfi'ld (20)
Freeman, Joseph, 146 W. 32nd st., Bayonne (9)
Gebirtig, Theodore, 181 South st., Morristown (14)
Goff, Frank J., 62 Maple av., Red Bank (13)
Goldowsky, Ira, 23 Warner av., Jersey City (9)
Good, Richard, 4619 Park av., Union City (9)
Green, Harry, 90 Duncan av., Jersey City (9)
Grossblatt, Philip, 31 Lincoln Park, Newark (7)
Guito, Frank 626 Mattison av., Asbury Park (13)
Harwood, H. L., 64 W. Central Blvd., Palisades P.(2)
Huss, Louis, 1722 Boulevard, Union City (9)
Jaffe, Herman M., 2600 Boulevard, Jersey City (9)
Klein, Allan, 8628 Hudson Blvd., North Bergen (9)
Landry, Ernest J., 227 Grant av., Bound Brook (7)
Little, William R., 491-493 W. State st., Trenton(11)
Liva, G. Albin, Madison av., Wyckoff (2)
Love, Elizabeth F.,Jeanes Hos.,Fox Chase,Phil.P.(3)
Machkowsky, Edwin, 241 Second st., Jersey City(9)
McCarthy, Cornelius P., 887 Boulevard, Bayonne(9)
Mearin, Robert J., 24 Porter pl., Montclair (7)
Mersheimer, Christian H., 15 Reservoir av.,Jer.C.(9)
Miller, Herbert G., 176 Union av., Rutherford (2)
Miranti, Paul J., 2685 Boulevard, Jersey City (9)
Modarelli, Walter H., 1505 Central av., Union C. (9)
Nicoll, George L., 25 McDavitt pl., Dover (14)
Norwich, Louis E., 355 Avenue C, Bayonne (9)
Pflug, Ferdinand J., 732 Hudson st., Hoboken (9)
Philo, Seymour S., 849 Hamilton av., Trenton (11)
Pingitore, Eufelia, 30 Martin ter., Hackensack (2)
Placa, James A., 182 Franklin av., Ridgewood (2)
Powell, Matthew J. G., Main st., Bedminster (14)
Pullen, Guy F., 111 Leonia av., Leonia (2)
Read, Donald B., 105 Hudson st., Jersey City (9)
Reinhart, Harry A., 80 S. Myrtle av., Vineland (6)
Ricciardelli, Emmanuel F., 1670 Boulevard, Jer. C.(9)
Rice, Franklin W., 184 South st., Morristown (14)
Riese, Jacob A., 6012 Palisade av., W. New York (9)
Rothschild, Carl E., 275 Grand av., Englewood (2)
Rowe, Joseph A., 174 S. Maple av., Ridgewood (2)
Schept, Samuel A., 523 37th st., Union City (9)
Schisler, Milton M., 2nd & Church sts.,Burlington(3)
Shapiro, Albert B., 103 N. East av., Vineland (6)
Smaine, Enrique Del C., 554 Hack'ns'k st.,Carlst't(2)
Sooy, L. Thomas, 202 W. Holy av., Pitman (8)
Sorett, Joseph, 299 Broadway, Newark (7)
Spitaleri, Liborlo N., 343 Union st., Lodi (2)
Street, Daniel B., 27 Woodlawn av., Jersey City (9)
Trilling, Leonard J., 423 Broadway, Paterson (16)
Voorhis, Charles F., 330 Morgan av., Palmyra (3)
Weber, Walter D., 305 23rd st., Union City (9)
Weinstock ,Michael B., 1 Johnson av., Newark (7)
Whalen, Edward C., 942 Cooper st., Camden (4)
Wheaton, Henry H., 42 Grove av., Verona (7)
Zacchino, Arnold, 1001 Anderson av., Palisade (2)
Ziegler, Frederick, Veterans Administration, Wilshire & Sawtell Blvd., Los Angeles 25, Calif. (4)

ASSOCIATES

Kuhn, Willlam G., c/o Mass. Gen.Hos.,Bos.Mass.(12)
Piserchia, Gerald J., 379 Washington av.,Bellev'le(7)
Sabety, Adrian M., 320 Park av., Orange (7)
Solomon, Philip, 32 Johnson av., Newark (7)
Vall, William P., 73 Hobart av., Short Hills (7)
Weckel, Philip P., Orange Mem. Hosp., Orange (7)

MEETINGS OF M-S PLAN TRUSTEES

Regular monthly meetings of the Trustees of the Medical-Surgical Plan of New Jersey are held at 11 a. m. on the fourth Sunday of each month at the offices of the Plan on the 12th floor of the Kinney Building, 790 Broad Street, Newark. Accordingly notice is given that the next two meetings will be on July 24 and August 28.

COURSE IN INTESTINAL SURGERY

Dr. O. H. Wangensteen, the staff of the Boston City Hospital and a team of distinguished guest surgeons will conduct a course in gastro-intestinal surgery in Boston on October 26, 27 and 28. This is under the joint auspices of Tufts Medical College and the Boston City Hospital. Tuition fee is $35. For obvious reasons, enrollment in this very intensive course must be limited, and registrants will be accepted in the order of application. For further data and for enrollment, write to the National Gastro-Enterologic Association at 1819 Broadway, New York 23, N. Y.

RESEARCH FELLOWSHIPS AVAILABLE

The American College of Physicians announces that a limited number of Fellowships in Medicine will be available from July 1, 1950, to June 30, 1951. These provide opportunity for research training either in basic medical sciences or in the application of these sciences to clinical investigation. They are for the benefit of physicians in early stages of their preparation for a career in Internal Medicine. Assurance must be provided that the applicant will be acceptable in the laboratory or clinic of his choice and that he will be provided with the facilities neeessary for the proper pursuit of his work. Stipend will be from $2,200 to $3,200 per year. Application forms are supplied on request to The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa., and must be submitted not later than October 1, 1949.

OBITUARIES

DR. SOLOMON J. BEN-ASHER

Dr. Solomon J. Ben-Asher, Jersey City heart specialist of national repute, died on April 27, after a heart attack.

Dr. Ben-Asher was born in Russia in 1894 but had lived in Jersey City for the past fifty years. He was the author of many technical articles on heart disease. He was graduated from the New York University and Bellevue Hospital School of Medicine in 1923, and for several years was on the cardiology staff at Bellevue. In World War I he served with the Chemical Warfare Branch of the Army in Washington.

Dr. Ben-Asher was a member of the International and American Gastro-enterological Associations, and was an associate fellow of the American College of Physicians.

DR. W. SHERMAN GARRISON

Dr. W. Sherman Garrison, well known and highly regarded physician of Cedarville, died at his home on March 3.

Dr. Garrison was born in Cedarville in 1888, and attended South Jersey Institute in Bridgeton and Swarthmore College. In 1913, he was graduated from Jefferson Medical College and the following year was resident physician at Cooper Hospital, Camden. He was on the Bridgeton Hospital medical staff and during World War I served on the Cumberland County Medical Advisory Board.

DR. LESLIE A. YAEGER

Dr. Leslie A. Yaeger of Trenton, died in St. Francis Hospital on February 28 following a brief illness.

Born in Trenton in 1892, Dr. Yaeger attended Trenton schools and Syracuse University. He was graduated from the University of Notre Dame in 1917 and the University of Maryland School of Medicine in 1921. He took additional training at Polyclinic and Post Graduate Hospitals in New York City.

Dr. Yaeger was a veteran of both World Wars. He served as a school doctor for the Board of Education in Trenton for 25 years, and was a member of St. Francis Hospital staff for 28 years.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

Dr. Daniel Bergsma, State Commissioner of Health has appointed Alfred H. Fletcher, M.S., as Director of the Bureau of Environmental Sanitation in the State Department of Health.

Mr. Fletcher, a veteran of World War I, received his B.S. in sanitary engineering at Massachusetts Institute of Technology in 1921. He was awarded a master's degree in sanitary engineering by Harvard in 1932.

He began his career in public health engineering as a sanitary engineer at the Rockefeller Foundation and was assigned to the U. S. Public Health Station at Memphis, for work on malaria-mosquito control.

In 1925 he accepted a position as sanitary engineer in the New Hampshire Department of Health. In 1926 Mr. Fletcher was appointed as assistant state sanitary engineer in the Louisiana Department of Health. He was directly in charge of malaria-mosquito control work and devoted time to inspections of water and sewage treatment plants.

The Department of Health of the city of Memphis, Tennessee appointed him Director of the Bureau of Sanitary Engineering in 1929. In that capacity he was responsible for administration of environmental sanitation including food and milk control.

In 1940 he joined the faculty of the School of Hygiene and Public Health, Johns Hopkins University, Baltimore, where he taught courses in sanitary engineering.

Mr. Fletcher accepted appointment as Senior Sanitary Engineer and Director of the Bureau of Sanitary Engineering of the New York City Health Department in 1945. He is responsible for the direction of all activities of the City Health Department in the field of environmental sanitation with the exception of food and drug control.

Mr. Fletcher teaches a course in sanitation at Teachers College, Columbia University and a course in housing at the School of Public Health, Columbia University. He is also Adjunct Professor at the New York University School of Engineering.

Mr. Fletcher is a member of the Advisory Board of the National Sanitation Foundation and has served as a member of the U. S. Public Health Service Milk Sanitation Advisory Board. He is a member of the Joint Committee of the American Public Health Association and the Conference of State Sanitary Engineers on Standards for Bathing Places and is a member of the Committee on Administrative Practices of the American Public Health Association.

He is the author of a series of technical articles in the field of environmental sanitation which have appeared in various scientific journals since 1933.

As Director of the Bureau of Environmental Sanitation, Mr. Fletcher will be responsible for the planning of laws, regulations, policies and program content in the field of environmental sanitation. He will plan, organize and direct the program of the State Department of Health in this field.

Private and public water supply programs and private and public sewage disposal programs will come under his direction as well as a water supply, bathing beach and stream antipollution program to prevent hazards to public health.

He will supervise and administer a food and drug regulation program as well as a program to prevent transmission of animal disease to man. An insect and rodent control program in cooperation with local health officials is also to be developed under his direction. The Bureau of Environmental Sanitation will include the Section on Food and Drugs, Section on Public Health Engineering, and Section on Veterinary Public Health.

Other appointments announced by Dr. Bergsma in the reorganization of the State Department of Health are:

Dr. J. S. McDaniel, Chief of the Rabies Control Program.

Dr. Adele C. Shepard, Acting Chief, Venereal Disease Control Program.

Dr. Marie A. Sena, Acting Chief, Section on Adult and Industrial Health.

Dr. A. Joseph Hughes, Chief, Tuberculosis Control Program.

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

T. Bruce Dickson, M.D., Reporter

As is the custom the May meeting of the *Burlington County Medical Society* was a social gathering with members' wives and the Woman's Auxiliary present. This meeting was a testimonial dinner to the following members who have been in practice fifty years or more: Doctors Emma W. Metzer, Emlen P. Darlington, Jacob M. Davis, and George T. Tracy.

Dr. Marcus W. Newcomb was toastmaster. The first "ladies' night" was held in 1906. At that time it was not a yearly event as it has been in recent years. The toastmaster introduced the first speaker of the evening who was the retiring president, Dr. Paul R. Sparks. In his speech Dr. Sparks outlined the outstanding events of the year. The most important of these was the bringing before the people of the county the importance of Public Health Work. This point was brought dramatically before the citizens by the establishing of Public Health Week when the County Society had an exhibit at the Burlington High School which was a great success. The Constitution and By-Laws have been revised and brough up to date. Lastly, Dr. Sparks renewed his plea of urgency for all of us to fight against socialized medicine.

After his speech Dr. Sparks presented his gavel to Dr. E. Vernon Davis, the new president. Dr. Davis made a short acceptance speech in which he indicated that there is much work to be done in the coming year.

The toastmaster, Dr. Newcomb, presented the guests of honor who were as follows:

Dr. Emma W. Metzer was born in 1870, graduated from the Women's Medical College in 1893, began practice of medicine in 1893, and became a member of the Burlington County Medical Society in 1896. She was married in 1900 and has one son who is a physician in Riverside, N. J.

Dr. Emlen P. Darlington was born in 1873, graduated from the University of Pennsylvania in 1899, and in the same year began practice of medicine in California. While on the west coast he studied mining and prospected for gold. In 1912 he came to New Jersey and established himself in the medical profession.

Dr. Jacob M. Davis was born in 1873, graduated from Hahnemann Medical College in 1899, and in 1900 established a practice in Burlington, N. J.

Dr. George T. Tracy was born in 1873, graduated from Jefferson Medical College in 1898, interned in Jefferson Hospital 1898-1899, began practicing medicine in Palmyra, N. J., in 1899, and became a member of the Burlington County Medical Society in 1901. From 1904 to 1936 Dr. Tracy was secretary of the county medical society.

Each guest of honor made a short speech thanking the county society for honoring them at this testimonial dinner. In their speeches they told of their early experiences, some of which were amusing and all very interesting.

Interspersed throughout the evening the members were entertained by Mr. Marshall Heinbaugh and Mrs. Margaret Kuder. Mr. Heinbaugh, tenor, sang several ballads and negro spirituals. He was accompanied at the piano by his wife. Mrs. Kuder who is the daughter-in-law of Dr. Joseph Kuder rendered four selections on the harp.

This meeting was the last until the members meet in September.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

President Frederick J. Faux was in the chair as the final spring meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club on May 19. The most important committee report was that of Dr. Wendell Burkett of the Committee of Twenty-One. He stated that his five captains had been appointed and would soon receive literature and be called to a meeting. Dr. Burkett stressed the importance of each physician doing his part in this all-out fight. He also discussed House Bills 2893 and 782 and their insidious implications and requested that we contact our representatives in Washington expressing our disapproval. The society also went on record to that effect and the secretary was instructed to write a letter to our congressmen.

Dr. Louis K. Collins mentioned the need of three new medical members for the County Venereal Disease Committee. Dr. Collins also discussed the request of the State Society that a committee be appointed to determine the scope of the welfare medical services in the county.

The scientific program was then presented by Matthew T. Moore, M.D., assistant professor of Neuro-pathology at the Graduate School of Medicine, University of Pennsyivania. Dr. Moore's interesting paper on "Psycho-surgical Procedures in Practice Today" was illustrated with slides and motion pictures.

The following officers for the coming year were then unanimously elected: President, J. Paul Burkett; Vice-President, A. Guy Campo; Secretary, Clarence A. Bowersox; Treasurer, Joseph A. Hughes; Reporter, Louis K. Collins; Historian, Dorothy M. Rogers; Trustees, William G. Harris—3 years: William W. Pedrick—2 years; Wendell J. Burkett—1 year; Censors, Herman W. Wright—3 years: J. Earl Wentzell—2 years; Frederick G. Wandall—1 year: Delegates to State Medical Society, Louis K. Collins—3 years; Frederick G. Wandall—2 years; Baxter A. Livengood—1 year; Alternates, I. N. Patterson—3 years; J. J. Laurusonis—2 years; Clarence A. Bowersox—1 year; Member and alternate for the nominating committee, Drs. Livengood and Collins.

It was decided to raise the County dues to $35 for the next year since the State dues have increased to $30.

MIDDLESEX COUNTY

William M. Winn, M.D., Reporter

The regular monthly meeting of the *Middlesex County Medical Society* was held on May 18, at the Roosevelt Hospital, Metuchen. The meeting was called to order at 9:15 p. m. by the president, Dr. F. M. Clarke.

1. A letter from Headquarters 1st A. F. announcing a vacancy to occur June 1 for a full-time or part-time civilian medical officer for duty at Camp Kilmer. Interested parties are requested to write to Dr. Irwin Plotnick, Unit Surgeon at Camp Kilmer.

2. A letter from the Highland Park Board of Health requesting clarification of the fee charged in examination of local food handlers. On motion, this matter was referred to the committee on medical practice.

3. A letter from Dr. Rugieri of the Cumberland County Medical Society relative to the American Red Cross Blood Bank. On motion, this matter was referred to the blood bank committee.

Dr. F. M. Hoffman, reported for the committee on medical ethics principles. On motion from the floor and approved, the following is to be added to Article IV, Section III: "Office patients are excepted", and on motion from the floor and approved, the following to be deleted from Chapter III; Section IV: "Office hours and specialty".

Dr. John S. Van Mater, chairman, public relations committee, reported on the 1-10-20 Plan. The following coordinating committee was appointed: Drs. Edward F. Klein, C. Howard Rothfuss, F. S. Taber, Marshall Smith, Howard Dieker and C. W. Hoffman.

The following were elected to membership in the Society: Drs. Joseph Dolan, New Brunswick on transfer from the Kings County Medical Society; Victor Boogdanian, New Brunswick, and J. M. Kluft, Perth Amboy to regular membership from Associate membership.

Dr. Lawrence Miscall, attending surgeon, Second Surgical Div., Bellevue Hospital, spoke on "Pneumonectomy" and the value of early diagnosis and treatment. Stress was laid on the low mortality rate and the excellent results achieved when surgery was resorted to at an early stage.

MONMOUTH COUNTY

Lester A. Barnett, M.D., Reporter

The first joint dinner-meeting with the Monmouth County Dental Society featured the regular monthly meeting on April 20, of the *Monmouth County Medical Society,* held at Deauville Inn, New Bedford. A few introductory remarks by Dr. William R. Hawkins, president of the dental society, and Dr. Frank J. Altschul, medical society president, started the scientific after-dinner program. Charles G. Darlington, M.D., professor of Pathology, New York University College of Dentistry, discussed *Oral Tumors* and Myron S. Aisenburg, D.D.S., professor of Pathology, University of Maryland School of Dentistry, spoke on *Oral Lesions.* A general discussion followed, led by Frank Houghton, D.D.S., dental director of the Jersey City Medical Center.

The New Jersey State Hospital, Marlboro, was host to the *Monmouth County Medical Society* at its regular meeting on May 19. An absorbing and practical discussion of *Office Neurological Problems* was presented by Dr. Joseph C. Yaskin, professor of Neurology and chairman of the Department of Neurology, Graduate School of Medicine, University of Pennsylvania.

OCEAN COUNTY

Joseph J. Camarda, M.D., Reporter

The annual meeting of the *Ocean County Medical Society* was held at the Forked River House on the evening of May 11 for the purpose of election of officers for the year 1949-1950. The following were elected: *President*—Harvey Rinzler; *Vice-president*—Pierre J. Nyvall; *Secretary*—Carmine L. Pecora; *Treasurer*—Raymond A. Taylor; *Reporter*—Joseph J. Camarda; *Nominating Delegate*—Blackwell Sawyer; *Alternate*—Carmine L. Pecora; *Convention Delegates*—Blackwell Sawyer, Carmine L. Pecora, Raymond A. Taylor; *Alternates*—Willis B. Mitchell, Richard R. Gove, Bernard W. Gartlan.

An informal discussion of the proposed government compulsory health insurance bill followed.

SUSSEX COUNTY

John E. Longnecker, M.D., Reporter

The annual meeting of the *Sussex County Medical Society* was held at the Cochran House in Newton, on May 10.

Committee reports brought out the following important facts:

1. The society had approved a mass x-ray program for the Sussex County Road Repair department.

2. A new plan and contract with the State Department of Child Welfare has been worked out. This was voted upon favorably by the society.

3. A report on the public meeting held by the Sussex County Cancer Society at Branchville on April 23 was given and the medical participants were thanked for their cooperation.

The nominating committee reported the following nominees for office for the coming year: *President*—Ewald H. Bergmann; *Vice-president* and *President-elect*—Leo B. Drake; *Treasurer*—John Piampiano; *Secretary*—Jesse McCall; *Reporter*—John E. Longnecker; *Member of Council*—Leslie Vermes; *Delegate (1952)*—Dorsett L. Spurgeon; *Alternate (1952)*—James H. Spencer, Jr.; *Delegate to State Nominating Committee*—Joseph G. Coleman; *Alternate*—Edward H. Weiser; *Alternate Delegate* (to replace Herbert M. Aiken)—Jack J. Caleca.

The report was accepted and the secretary was instructed to cast a unanimous ballot.

Dr. Bergmann then made his committee appointments.

Announcement of the new Cerebral Palsy Clinic's opening at Newton on May 20 was made.

Members were requested to consider the problems of emergency calls and the duties of school physicians for discussion at the next meeting.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

MRS. DAVID B. ALLMAN, President, Atlantic City, N. J.

1949 - 1950

The national auxiliary president, Mrs. David B. Allman, was born in Quebec, and educated in the public and high schools of Ottawa, Canada. She is the daughter of the late Mr. and Mrs. William Bothwell.

In 1915 she came to the United States to enter nurses' training, in the Atlantic City Hospital. She was graduated in 1918 and became associated with the staff of the Atlantic



City Hospital. Four years later she was married to Dr. David B. Allman, who is at present the Surgical Director and senior Surgical Chief of the Atlantic City Hospital, a Trustee of The Medical Society of New Jersey, and an A.M.A. Delegate from New Jersey.

Mrs. Allman has continued her interest in nursing affairs and has been active in the Nurses' Alumni Association of the Atlantic City Hospital. She is also a director of the Atlantic County Chapter of the American Red Cross.

Mrs. Allman was president of the Woman's Auxiliary to The Medical Society of Atlantic County in 1942, and president of the Woman's Auxiliary to The Medical Society of New Jersey in 1944. She has served as chairman of convention arrangements for the Annual Meetings of the Woman's Auxiliary to The Medical Society of New Jersey for the past six years. She served two years as a director and was first vice-president of the Woman's Auxiliary to the American Medical Association two years. She has also served on many national auxiliary committees.

Mrs. Allman was treasurer of the Woman's Auxiliary to the Betty Bacharach Home for Crippled Children for two years, and president of the Women's Auxiliary to the Atlantic City Hospital in 1948. She is a member of the Woman's Club and the Woman's Research Club of Atlantic City, and a member of the First Presbyterian Church of Atlantic City.

She resides at 104 St. Charles Place, Atlantic City, New Jersey, and maintains a summer home on the Brigantine Boulevard, Brigantine, New Jersey.

ANNUAL SPRING CONFERENCE

MRS. THOMAS H. MCGLADE, Chairman, Press and Publicity

The Annual Spring Conference sponsored by the Woman's Auxiliary to The Medical Society of New Jersey was held on Monday, May 23, 1949, at the Stacy Trent Hotel, Trenton. Mrs. Paul Rauschenbach, of Paterson, Public Relations Chairman, was responsible for the very successful meeting.

The theme of the meeting was "What Health and Medical Services are Available to the Needy in New Jersey".

The morning session included Informal Round Table Discussions divided into four units. They were:

1. "Improving Local Public Health Services"—Daniel A. Bergsma, M.D., M.P.H., New Jersey State Commissioner of Health. A film *Guardians of our Health* was shown, depicting the activities of a Local Health Department carrying out a complete health program. The methods of procuring the services displayed on the screen are the education of the citizens and the organization of County Health Councils to concentrate the efforts for better local health services. The Woman's Auxiliary can be a leader of the task.

2. "Providing Medical Care for Needy Patients" was subdivided into four groups. Harold C. Cox, M.D., Chairman, Advisory Committee on Medical Care of the Indigent, The Medical Society of New Jersey, discussed "General Welfare Clients". The indigent, and the municipalities' responsibility to them, was brought out in an effort to gain first quality medical care for them.

Mr. Marc P. Dowdell, Director, State Division of Old Age Assistance, told how the increased life span, in which the age of 65 years is reached by many, is the cause of the problem of the aged.

Medical care and inculcating proper health habits in the child were important items in the talk on "Family and Child Welfare" by Mr. E. F. Hann, Jr., Assistant Director, State Board of Child Welfare.

Dr. Emil Frankel, Director, Division of Statistics and Research, Department of Institutions and Agencies, presented interesting statistics relative to the care of the underprivileged who are ill, in his topic of "Measuring Resources Against Needs".

3. "Taking the Economic Shock Out of Illness" was explained by Norman M. Scott, M.D., Executive Vice-President, The Medical-Surgical Plan of New Jersey. Voluntary health insurance plans and national compulsory medicine were thoroughly discussed.

4. "Telling the Public About Health and Medical Services" comprised: (a) "Rural Health Education Program" by Mrs. Asher Yaguda, Chairman, Public Relations Committee, Woman's Auxiliary to the American Medical Association. Mrs. Yaguda outlined the two part program designed to provide authentic health information to the people of rural New Jersey, launched at the 1948 annual spring conference. These programs are both informative and entertaining, based on proved health needs of the country areas of New Jersey and are offered without charge to rural organizations.

(b) "Health Education Services of the State Department of Health" were itemized by Mr. Ralph T. Fisher, State Consultant on Community Health Organization, State Department of Health. They included sanitation, direct health education, understanding of the public and their health needs, formation of community health councils.

(c) Five minute reports of the following Voluntary Health Agencies: American Cancer Society, N. J. Division—Dr. Wm. O. Wuester, Director, Green Memorial Clinic of the Elizabeth General Hospital; Commission of the Blind—Mr. George F. Meyer, Executive Director; Crippled Children Commission — Miss Eleanor P. Duffy, Pediatric Consultant; Metropolitan Life Insurance Company's Nursing Program—Miss Grace Anderson, Local Supervisor, Camden; National Foundation for Infantile Paralysis, N. J. Division — Mr. George Barrie, N. J. State Representative; New Jersey Heart Association—Mr. Howard Dayton, Executive Director; New Jersey Mental Hygiene Society—Rev. Robert D. Smith, Acting Chairman; New Jersey School for the Deaf—Miss Ethel Warfield, Educational Consultant; New Jersey Tuberculosis League—Miss Edith Stuckey, Director, Public Information; Paterson League for the Hard of Hearing—Mrs. M. Richardson, Executive Director; State Organization for Public Health Nursing—Mrs. E. J. Wight, Director of Lay Section.

At the completion of the luncheon, Mrs. Rauschenbach introduced the guests of honor and speakers. She acknowledged the splendid cooperation of her committee and the participating agencies in the successful culmination of the program. Dr. Daniel A. Bergsma extended greetings from Governor Alfred E. Driscoll. Mrs. Norman Nathanson, President of the Woman's Auxiliary to The Medical Society of New Jersey, expressed her appreciation of the interest in civic pride as represented by those present at the luncheon and meeting.

The speaker of the afternoon, Dr. James F. Norton, President, The Medical Society of New Jersey was then introduced. "What Does the Future Hold for Medicine?" was the topic of his talk. Dr. Norton told his audience that what is best for the citizenry is the answer to what is best for the country and not what is best for the doctor. The more security, the less the individual you have the right to be. Medicine is the testing ground. Mass security is offered in socialized medicine. Medicine recognizes and admits there is a problem to be

solved. Government control is not the answer. Health is your personal business. Citizen education is important to make them aware of compulsory health insurance. "Battle for this thing called America". The problem is to get an educational program to the people. No group is so important as a well informed American electorate.

The following groups were represented at the conference: College Clubs, A. A. U. W., State Hospitals, Woman's Clubs, Welfare Councils, Visiting Nurses Association, Tuberculosis League, A. F. of L., C. I. O., Dyers Local, Master Plumbers Ass'n., Public Health Nurses, Textile Workers Union and P.T.A.'s.

AUXILIARY REPORTS

Hudson County

Mrs. Morris Bresev, Chairman, Press and Publicity

The last regular monthly meeting for the current year of the *Woman's Auxiliary to the Hudson County Medical Society* was held May 2, at Murdoch Hall, Jersey City.

Mrs. William Gleeson, gave a report on the recent State Convention, also a summary of events which occurred in the past year.

A motion was passed to accept the annual reports of the various committees.

Plans were completed for the annual Play Day to be held May 24, at the Forest Hills Field Club. Mrs. Samuel Scott will serve as chairman.

Mrs. Sydney Chayes of Bayonne was installed as president and was presented with the gavel and a corsage of roses by Mrs. William Gleeson, retiring president.

Installed with Mrs. Chayes were *President-Elect,* Mrs. Francesco Figurelli; *First Vice-President,* Mrs. John Muccia; *Second Vice-President,* Mrs. Louis Norwich; *Recording Secretary,* Mrs. Morris Bresev; *Corresponding Secretary,* Mrs. Samuel Barishaw; *Treasurer,* Mrs. Harry Perlberg.

After the ceremonies Mrs. John Nevin presented the past-presidents' pin to Mrs. Gleeson, and Mrs. Arthur Largay, in behalf of the Auxiliary, presented her with an orchid corsage.

Mrs. Chayes announced committees to serve during her term of office.

After the meeting there was a musical program. Mrs. Charles Butler gave several vocal solos accompanied by Mrs. Harry Perlberg. Mrs. Albert Lepis and her committee served as hostesses.

BOOK REVIEWS

Aesculapius Comes to the Colonies. Maurice Bear Gordon, M.D. Ventnor Publishers, Box 2098, Ventnor, New Jersey. Pp. 560. 1949. ($10.00)

The author of this book is a member of The Medical Society of New Jersey. It is therefore, only proper that a reviewer in this JOURNAL pass swiftly over the book's occasional defects. To dispose of them first: there is too much padding in the volume—page after page, for instance, devoted to historical details not related to medicine and available in any school history. It is hard to see why Dr. Gordon gives us details about Verrazano's voyage to our shores in 1524. This has no medical implication. It is interesting to see samples of bills rendered by colonial doctors; but in the chapter on New Jersey alone, more than 14 pages are devoted to such bills, line by line—which seems like a bit too much space. One page would have been enough. The author is, at times, guilty of consciously fine writing ("the beginnings of modern medicine like the first rays of the morning sun were beginning") and at other times he uses sentences of inextricable complexity and length. Thus, the first sentence in the book is 76 words long, which comes close to a record for non-stop writing.

On the other hand, this is the first comprehensive survey of colonial medicine in the New World. It is profusely illustrated. The scholarship is of high order. It is certainly an invaluable source book for the medical historian.

HENRY A. DAVIDSON, M.D.

Modern Clinical Psychiatry. By Arthur P. Noyes, M.D. 3rd Ed. Pp. 525. Philadelphia, 1949, W. B. Saunders Company. ($6.00)

Dr. Noyes has again brought out a valuable addition to the libraries of both the student and the graduate in psychological medicine. In the third edition of his text, he carries on his eclectic approach, ably balancing all the viewpoints from the pure organic to the ultra-psychologic. His careful choice of precise, easily understood language makes for smooth, enjoyable and interesting reading. His extensive experience, both as a clinician and as a teacher, is reflected in choice of subject matter and unbiased presentation of debatable points which permits and inspires the student to seek further evaluation.

Much of the psychodynamic material has been rewritten for this edition, with greater emphasis on the so-called "minor" disorders, the psychoneuroses.

The total concept of psychosomatics has also come in for a larger share of the discussion.

The book is divided into thirty-two chapters, among which are three new sections: psychotherapy, shock and other physical therapies, and child psychiatry. There is a carefully selected bibliography at the end of each chapter and a fairly complete index. On the whole, the volume represents a well integrated amalgamation of psychiatric technics from the organic descriptive to the interpretive dynamic with a minimum sacrifice of definiteness.

JOHN J. KELLY, M.D.

Treatment of Heart Disease. By William A. Brams, M.D. Pp. 195 with 11 illustrations, Philadelphia, 1949, W. B. Saunders Co. ($3.50)

The title of this book should really be "A manual for treatment of heart disease". It is a concise, clear statement of the author's beliefs and methods in the treatment of heart disease. No attempt is made to reconcile, or even cover, the varying methods of therapy, no matter how widely or narrowly divergent these methods may be. Within the limits of a manual, the text serves its purpose well. Particular reference should be made to the discussions on the pharmacology of drugs in the treatment of heart disease, the treatment of congestive failure, and the relation between heart disease and surgery. The text reads easily despite the extensive use of detailed therapeutic recommendation. The bibliography is extensive, selective and recent. The index is detailed and accurate.

This book should be favorably received by undergraduates and busy practitioners as supplementary to the larger and more leisurely texts on heart disease.

H. GREEN, M.D.

The Business Side of Medical Practice. By Theodore Wiprud. 2nd ed. Pp. 232. Phila., W. B. Saunders Co., 1949. ($3.50)

With twenty chapter heads, as many aspects of medical economics are discussed. Pertinent information (with boring detail deleted) comprises the bulk of the text. The author writes from a long personal experience with doctors as executive director of the Medical Society of the District of Columbia. He knows many helpful facts not usually revealed to aspirants for the M.D. degree. He includes chapters on locations, practice building, personal efficiency; estates, insurance, manuscripts, press and public relations.

This second edition fills a need since the earlier edition was exhausted and the new chapters on medical groups and the medical future are pertinent. The book is simply written, informative and leaves a desire to follow up many of the non-medical facets of practice.

IRVING SHAPIRO, M.D.

Diagrams of the Unconscious. By Werner Wolff, Ph.D. Grune and Stratton, New York, 1949. Pp. 423. ($8.00)

We are all unconscious of the small muscle movements used in writing, gesturing, walking and doodling. The patterns of these movements are unique for each individual as evidenced by the fact that we can recognize a familiar gait or a familiar handwriting, though we may be unable to point out the specific features which make recognition possible. From all of this, it follows that the determinants of your particular style of hand-writing, or mine, are unconscious determinants. And thus, signatures, doodles and script specimens become very real reflections of the unconscious. On this basic concept, Wolff has constructed a complete theory of personality make-up and of the ways in which this is reflected by small muscle movement patterns. He has supported this by analyzing, according to his own formulation, the signatures or writing specimens of hundreds of historical characters. The analyses (which rigidly follow his pre-explained formulations) reflect personality and character traits which we recognize as appropriate for the individuals concerned.

He presents convincing evidence of the persistence of significant patterns in spite of deliberate efforts to disguise hand-writing. (The success of handwriting identification by experts attests the validity of this thesis: any such identification implies the persistence of traits in the writing patterns in spite of efforts at disguise). The first ten chapters represent a careful step-by-step presentation of, and implementation of, the author's intriguing hypothesis. He very properly warns the reader against any assumption that each isolated graphologic characteristic can be directly translated into a personality trait. Unfortunately, the need for satisfying the popular hunger for "how-to-do-it-in-six-easy-lessons" kind of material drives the author into compromising with his own standards, so the book finishes with what the dust wrapper describes as "scoring charts and directions for analysis". Character analysis cannot be learned by any so simple a scheme, and the author certainly knows it. If this chapter (only 20 pages fortunately) can be ignored, the careful reader will find this book a challenging and absorbing treatise.

HERBERT BOEHM, M.D.

Germicides, Antiseptics and Disinfectants for Hospital Use. By Dewey H. Palmer. Pp. 15. New York, Hospital Bureau of Standards and Supplies, Incorporated, 1948. ($1.00)

This pamphlet brings together the results of investigations of germicides, antiseptics and disinfectants, offered for medical and hospital use, which have been passed upon by the Council on Pharmacy and Chemistry of the American Medical Association. The first portion deals with terminology. A short discussion of chemical disinfection and its limitations is given. The application and limitations of certain specific agents such as the alcohols, chlorine compounds, iodine, formaldehyde solutions, quaternary ammonium salts, hexachlorophene, mercurials, and the phenols are discussed.

The uses of the various types of specific agents and their effects upon bacteria are outlined. The pamphlet is recommended as summarizing available information on these substances.

ASHER YAGUDA, M.D., Newark

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **July, 1949** **No. 7**

THE screening of large numbers of people for tuberculosis by the use of chest X-rays has resulted in an appreciable number of cases of primary carcinoma of the lung being found at a stage in which surgical intervention may be effective. As with tuberculosis, prompt detection and treatment before symptoms appear give the greatest hope for complete recovery.

CANCER OF THE LUNG

Cancer of the lung, its detection and treatment, is so closely linked to the modern attack upon tuberculosis that every physician and surgeon, every social worker and educator, interested in the latter disease should likewise be well informed about primary cancer of the lung. Many skilled observers believe that this disease actually is increasing in incidence; others argue that it is merely being identified more accurately in recent decades. All agree that it is one of the most frequently encountered and one of the most important types of malignant disease encountered in the male sex, probably second only to cancer of the stomach.

There is no explanation for the remarkable fact that primary cancer of the lung is six to eight times as common in men as it is in women. Its amazing frequency among miners working with radioactive materials in certain German mines may be significant to the coming age of atomic warfare and atomic power. Its possible relationship to potentially carcinogenic agents in road building materials and exhaust products of internal combustion motors has been questioned and denied. The actual causes of cancer of the lung are as obscure as are the causes of other types of malignant growth.

The effective surgical treatment of primary cancer of the lung has developed largely within the past 10 years, aided by new techniques and by the protective value of modern antibiotics. Many surgeons received their special training and experience in thoracic surgery during the recent war and hence the availability of such treatment has been greatly increased within the past five years. Surgical mortality rates are still declining steadily, so that exploration of the chest can be performed almost as freely and almost as safely as surgical exploration of the abdomen.

Chemotherapy of cancer has not yet come of age but steady progress has been recorded in recent years and never before have so many diligent and skilled scientists devoted so much energy to a medical problem. Indeed no previous medical problem could be more significant to the human race.

As with other cancers, early diagnosis is of paramount importance; and, as with other pulmonary diseases, X-ray examination of healthy persons and of those with early respiratory symptoms is the most useful screening procedure. However, early cancers of the lung often cast indefinite or confusing shadows upon X-ray films, simulating tuberculosis, pneumonia, lung abscess or almost any other type of localized pulmonary infiltration. Bronchoscopy will reveal the early cancers which originate in larger bronchi, especially those of the lower lobes of the lungs. Recently the microscopic examination of sputum for cancer cells has gained in accuracy and in popularity, but few trained diagnosticians in this difficult technique of examination are available today.

Every large chest X-ray survey project brings to light cases of primary cancer of the lung, and these may prove to be the most readily curable

if detected and treated before symptoms have developed and before the disease has proceeded to an inoperable stage. Some of these cases have been referred to tuberculosis sanatoriums under erroneous diagnosis or for observational purposes. Sanatorium physicians are learning to view with suspicion any localized pulmonary lesion, especially if somewhat circumscribed and progressive and if tubercle bacilli cannot be demonstrated.

Modern cultural techniques for isolating tubercle bacilli are sufficiently accurate that negative examinations of secretions have real value in excluding tuberculosis and in increasing the suspicion of cancer. But occasionally the shadow cast by X-ray is sufficiently suggestive of cancer, even when the lesion is small, to justify exploratory surgery without awaiting the prolonged incubation of cultures. As with all other medical decisions which affect the life of the patient, the physician must have the skill and experience to balance the risk of early radical action against the sometimes greater risk of delay and observation. Whether or not a curative operation can be performed may depend upon whether it is done within the first few weeks after detection of the lesion.

Physicians in general practice and specialists in internal medicine are learning that repeated attacks of pneumonia may actually be obstructive pneumonitis caused by the blocking effect of a bronchial cancer, and that symptoms may be relieved promptly but only temporarily by penicillin treatment. They have learned that every case of pneumonia should be studied by X-ray and followed by repeated films until the possibility of an obstructing cancer is excluded. The expectoration of blood is more typical of cancer than it is of tuberculosis. Wheezing respiration caused by an obstructing bronchial cancer may simulate asthma for a few weeks or months. Pleurisy caused by cancer extending to the pleural surface of the lung may at first simulate the pleurisy of tuberculosis or of pneumonia.

The campaign against cancer, like the campaign against tuberculosis, must depend upon an enlightened public, a skillful and alert medical profession, and an inspired corps of scientific investigators. The universal use of X-ray, almost to the point of apparent extravagance, would seem to be required if any large proportion of cases of cancer of the lung are to be detected in time to permit curative treatment by present-day methods.

Cancer of the Lung, H. Corwin Hinshaw, M.D., The NTA Bulletin, February, 1949.

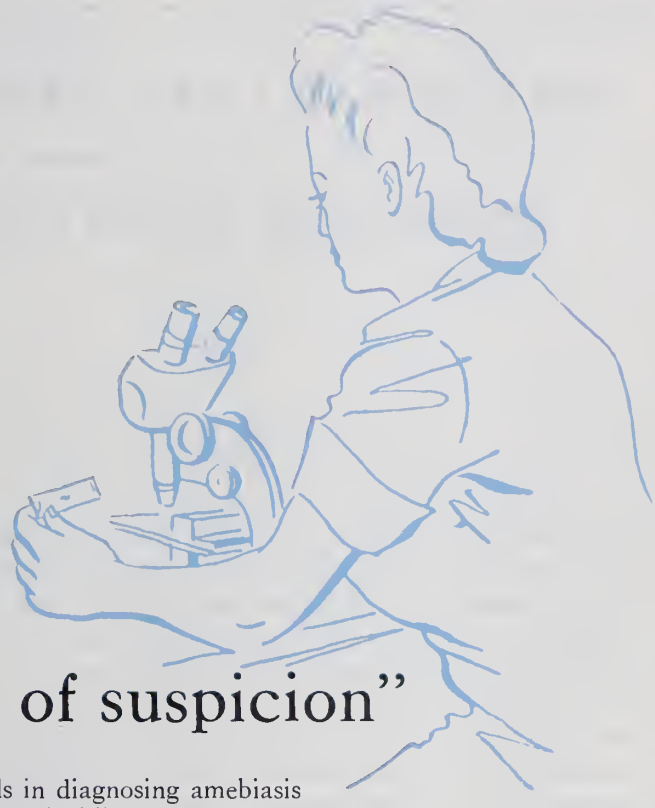
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1. Warshawsky, H.; Nolan, D. E., and Abramson, W.: Hepatic Complications of Amebiasis, New England J. Med. *235*:678 (Nov. 7) 1946.

2. Manson-Bahr, P.: Some Tropical Diseases in General Practice: "A Post-War Legacy." Glasgow M. J. *27*:123 (May) 1946.

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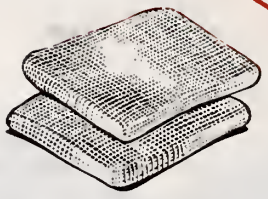
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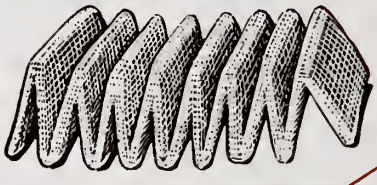
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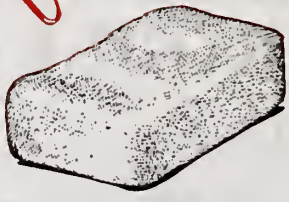
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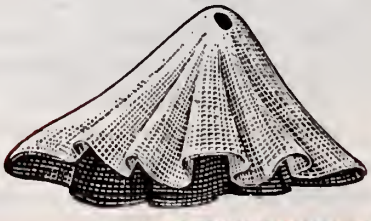
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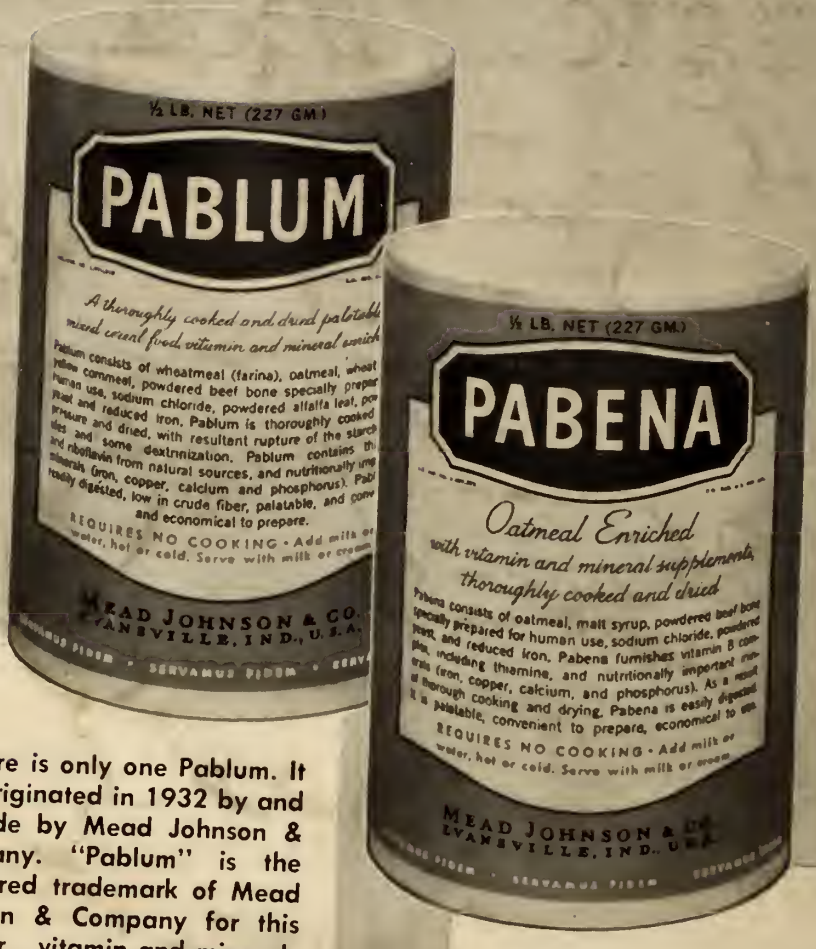
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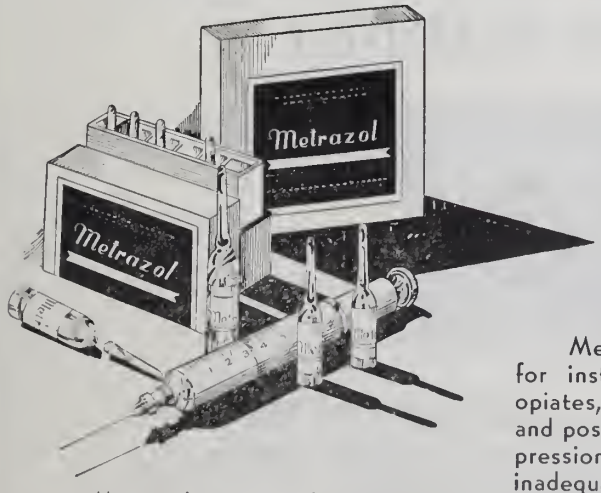
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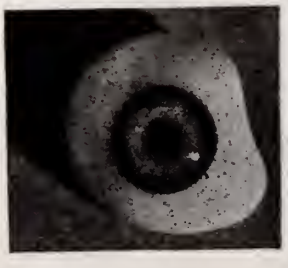
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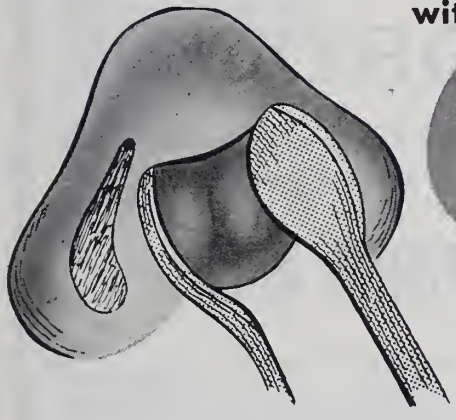
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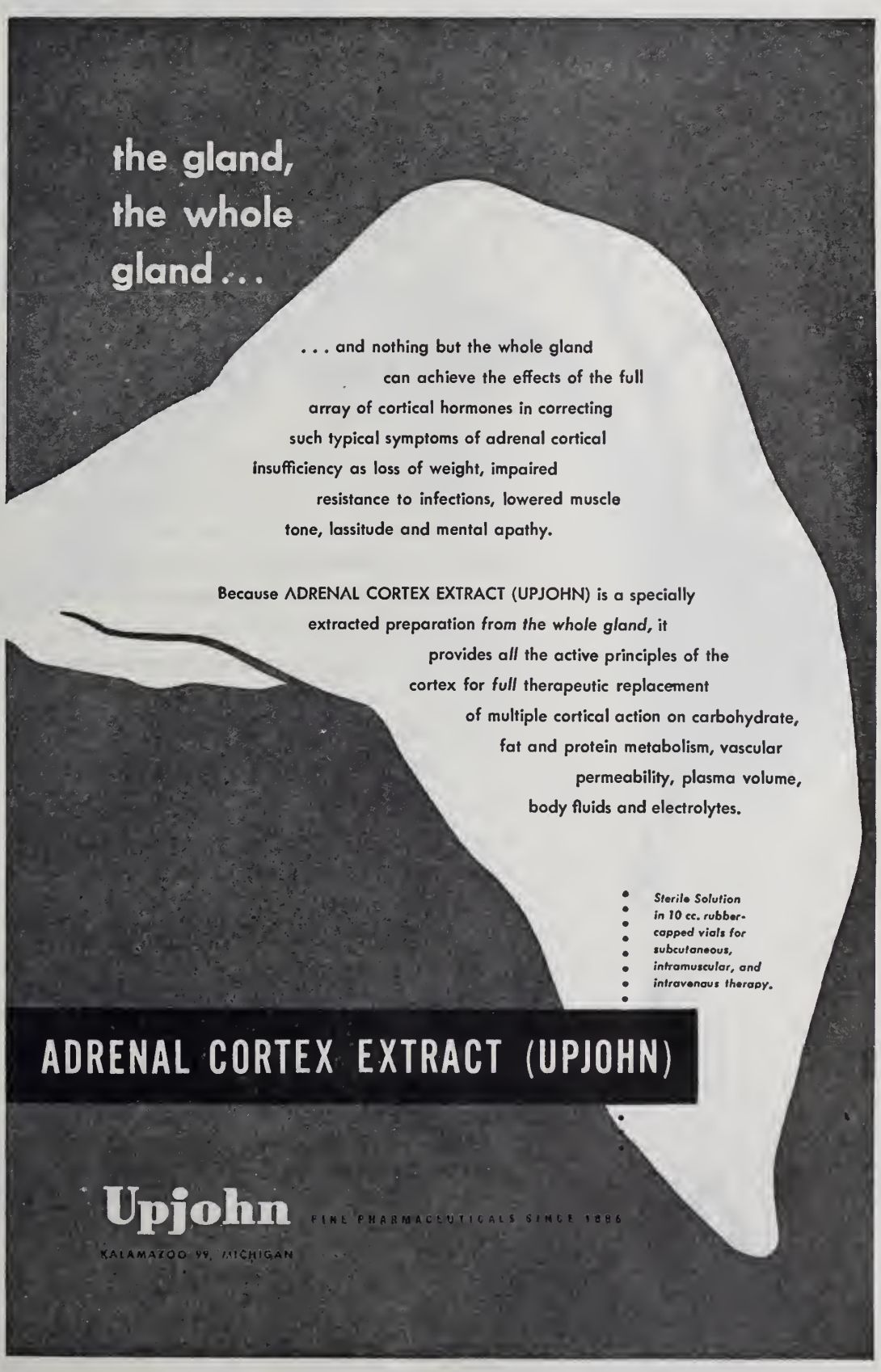
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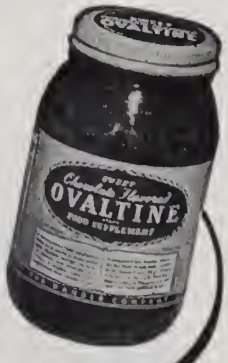
*Based on average reported values for milk. Three servings of Ovaltine, each made of ½ oz. of Ovaltine and 8 fl. oz. of whole milk, the daily dosage recommended for diet supplementation, provide 676 calories.

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AN URGENT APPEAL TO YOUNG DOCTORS!



Your personal help is needed to avert a serious threat to our national security!

By the end of July of this year we will have lost almost one-third of the physicians and dentists now serving with our Armed Forces. Without an increased inflow of such personnel, the shortage will assume even more dangerous proportions by December of this year.

These losses are due to normal expiration of terms of service. The professional men who are leaving the Armed Forces during this critical period are doing so because they have fulfilled their duty-obligations and have earned the right to return to civilian practice.

Without sufficient replacements for these losses, we cannot continue to provide adequate medical and dental care for the almost 1,700,000 service men and women who are the backbone of our nation's defense.

Normal procurement channels will not provide sufficient replacements!

To alleviate this critical, impending shortage of professional manpower in the three services, I am urging all physicians and dentists who were trained under wartime A. S. T. P. and V-12 programs under government auspices or who were deferred in order to complete their training at personal expense, *and who saw no active service,* to volunteer for a two-year tour of active duty, at once!

We have written personally to more than 10,000 of you in the past weeks urging such action. The response to this appeal has not been encouraging, and our Armed Forces move rapidly toward a professional manpower crisis!

Many responses have been negative, but worse—a great number of doctors have not replied. It is urgent that we hear from you immediately!

We feel certain that you recognize an obligation to your fellow men as well as to your profession in this matter. We are confident that you will fulfill that obligation in the spirit of public service that is a tradition with the physician and dentist.

There is much to be said for a tour of duty with any of the Armed Forces. You will work and train with leading men of your professions. You will have access to abundant clinical material; have the best medical and dental facilities in which to practice. You will expand your whole concept of life through travel and practice in foreign lands. In many ways, a tour of service will be invaluable to you in later professional life!

Volunteer now for active duty. You are urged to contact the Office of Secretary of Defense by collect wire immediately, signifying your acceptance and date of availability. Your services are badly needed. Will you offer them?

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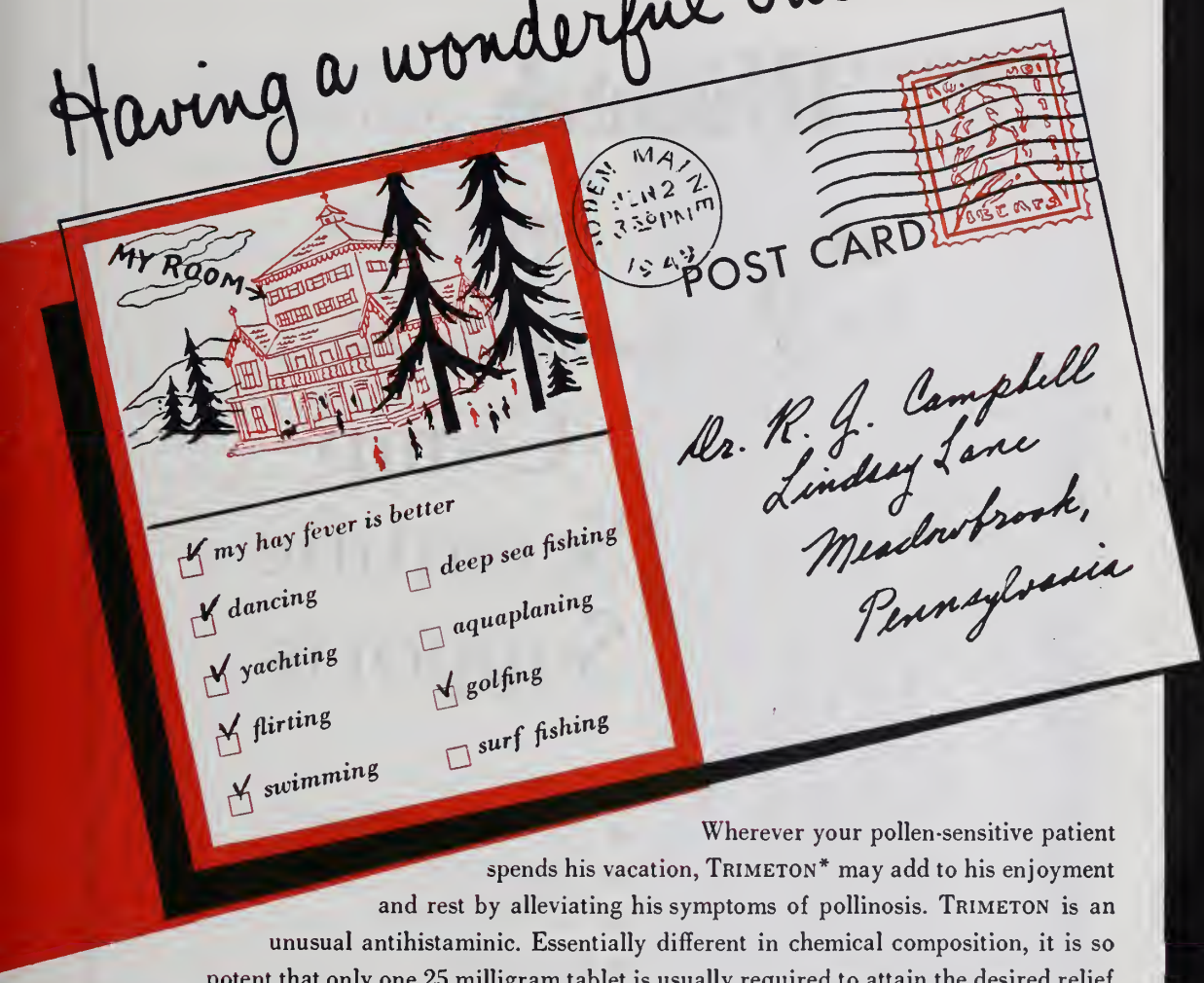
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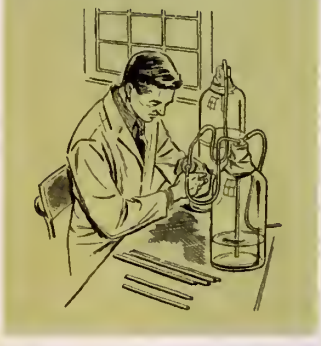


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Number 8

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OF
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HENRY CHARLES BARKHORN, M.D., 1885-1949

Now forever stilled is the voice that guided this Journal for the past twenty years. The death of Dr. Henry Barkhorn will tear a bit out of the fabric of the lives of thousands of his fellow citizens —and for many different reasons. His patients will miss the kind, vibrant reassurance of his voice, the support of his warmth and the firm competency of his professional skills. A dozen civic and community organizations will have lost an inspiring and effective leader. His family and personal friends will suffer a painful and immeasurable ache, alleviated perhaps by the knowledge that he was loved by a host of others too. His heartwarming smile, personal magnetism and sunny charm radiated far beyond the limits of his immediate circle of family and friends. Perhaps we of The Medical Society of New Jersey will be second only to his own family in the poignancy of our loss.

As indicated in the many newspaper obituaries, he was an active and tireless worker in medical societies and hospital staffs. But not apparent from the cold listings in any obituary were the more subtle ways in which he worked for the good in so many organizations. He had a way of settling grievances, calming the ill temper of others, and pointing the way through chaos and confusion. He did this without compromising essential principles. He did it by reason of an extraordinary combination of tactfulness, warmth, inspiration and personal integrity.

He was the very life and breath of this Journal. He guided it with firmness

† Deceased.

and smoothness. He was always there to answer questions and solve our problems. He was the unruffled captain of our ship. When the chairman of the publication committee dies, this seems to be an occasion for long and florid editorial comment. But today we cannot write with studied cleverness or scan the thesaurus for laudatory words. What his loss means to us of the JOURNAL staff is too profound, too personal and too painful to be written here.

In addition to his numerous well known labors in organizations and agencies, he engaged in an unceasing stream of quiet good works. No one will ever know how many people he helped in terms of advice, or reassurance, or in more material ways. He did these good things silently because he was that kind of man; because he was a man of intense spiritual faith and genuine religious conviction. It is this which shows us the only solace in the tragedy of his death. For to such a man, the road leads straight into the very Kingdom of Heaven.

PRESIDENT'S MESSAGE

It is hard to believe that there can possibly be any physician practicing in our state who is now unaware of the critical danger confronting our profession. The deadly political threat against the future of good medical service in the United States places a crucial personal responsibility upon everyone of us to do his part in defending the voluntary way in medicine, which is an essential pillar of the Amercan Way of Life.

The question before us, in our own terms, is "Shall we be permitted to continue the practice of medicine as free men or shall we be subjected to monopolistic government control?" In the terms of our lay friends and patients, the question is "Shall they be permitted to enjoy the benefits of an advancing art and science of medicine or will their personal welfare be jeopardized by the institution of second-grade medical care, operated by a creeping bureaucracy which will ultimately extend its control over all segments of American life?"

The Medical Society of New Jersey has worked assiduously, and will continue to do so, in the interest of the people of New Jersey and in your interests, in order to protect both against federal compulsory sickness insurance.

Our present program has two major aspects. First, we are engaged in a statewide educational effort to alert the people to the full meaning and inevitable consequences of government medicine; second, we are making an all-out effort to meet the legitimate need and demand for voluntary medical care protection through the instrumentality of our Medical-Surgical Plan. This Plan was organized by our Society to assist the people of New Jersey in obtaining adequate medical care at a cost they can afford. Only by such positive and constructive action can we hope eventually and finally to defeat compulsory sickness insurance.

Medical-Surgical Plan is now launching a new program approved by the House of Delegates in April 1948 and again in April 1949. This is designed to make available to every person in New Jersey and, through the 4500 participating physicians of the Plan, to provide full payment for eligible services rendered to subscribers and their enrolled dependents in cases where the annual income of the subscriber is $5000 or less.

A major addition to the new program is a "Direct Enrollment Contract" to be available to individuals and individual families. This direct enrollment family contract includes obstetrical care among the services eligible for payment, if such care is rendered after 300 days joint en-

rollment of husband and wife under the contract. Study by Medical-Surgical Plan indicates that 75 per cent of the reimbursible amount indicated in the Plan's schedule of benefits for obstetrical care under group enrollment contracts can be immediately paid to participating physicians under the direct enrollment contract, this to be deemed as payment in full by participating physicians for all cases falling below the $5000 income level. The possibility of temporarily prorating fees to physicians, however, is limited to fees for obstetrical care in the new direct enrollment contract. The Plan expects to pay 100 per cent of the schedule of benefits for all other types of care under the direct enrollment contract, and to continue to pay full benefits for all services under the group program. One of the vital aspects of the program is the physician's relationship to it for it is the physician's support or lack of support of the Plan which will ultimately determine its success or failure.

Our first interest is the people of this state. It is our collective responsibility as physicians to see that the people of every community receive adequate care at a cost they can afford. Medical-Surgical Plan is our agency through which we hope to accomplish this result.

Medical-Surgical Plan is operated in accordance with the traditions of the profession, the ethics of the profession, and the philosophy of the profession. It operates within the present framework of medical practice. If you believe these things worth saving and perpetuating for future generations, give your full and sincere support to Medical-Surgical Plan. If, in a few rare instances, you feel that you are suffering a relative financial loss under Plan payments, you should consider that loss as a contribution to the general welfare of the profession, and an insurance premium to guarantee the future of the private practice of medicine.

The people enrolled in the Medical-Surgical Plan understand that the Plan and its program is sponsored, supported and underwritten by members of this Society. Their confidence in the Plan and its program rests on this basis. I urge you, therefore, with all the emphasis of which I am capable, to demonstrate to the public, through your relationship with this Plan and its subscribers, the integrity and sincerity of the medical profession. If we can establish this relationship with the people, we need have little fear of compulsory sickness insurance or any other governmental machination.

JAMES F. NORTON, M.D.
President.

THE RUTGERS INSTITUTE OF MICROBIOLOGY

New Jersey seems certain to become a world center for the study of microbiology. This conclusion seems justified by the recent announcement of the establishment of an institute of microbiology in connection with Rutgers University. Royalties on the New Jersey-born antibiotic, streptomycin, will furnish the first million dollars needed for the new institute. Further, Dr. Waksman has unselfishly assigned his patent on his antibiotic discoveries to the Rutgers Research and Endowment Foundation with the understanding that the net proceeds will be used to further research, with emphasis on microbiology. The new institute will of course furnish increased facilities for research; but it will do more than that. It will become a nucleus for graduate teaching and a world center for knowledge on microbiology. It has

(Continues on page 375.)

ORIGINAL ARTICLES

NON-SURGICAL TREATMENT OF PERIPHERAL VASCULAR DISORDERS

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This paper is concerned with the treatment by entirely medical means of disturbances in the peripheral circulation; surgical treatment and its specific technics are not discussed.

Evaluation of special therapeutic methods is presented together with the discussion of specific disorders in which these methods are generally applied.

GENERAL TREATMENT

General therapy of peripheral vascular disorders will be concerned with three outstanding tasks:

1. Among patients threatened with circulatory insufficiency of whatever kind, to prevent such insufficiency, if possible. Once a certain degree of circulatory insufficiency has occurred, the goal is, at the least, to prevent further progression.
2. Once the struggle between the forces of destruction and forces of repair is on, treatment should aid the forces of repair in every way which will promote increase of circulation directly and indirectly.
3. If compensation of insufficient circulation has been achieved, it will be the purpose of treatment, to maintain this compensation.

The management of chronic arterial insufficiency should include all patients who (a) show the well-known signs of peripheral arterial insufficiency or (b) in whom we have sufficient evidence that they may be threatened by this disorder in the future. Included in this second category are those with severe generalized arteriosclerosis, persons with a tendency to spastic arterial disorders, diabetics, chronic trench foot cases and the like. If one of these patients does not have signs of arterial insufficiency, he will, in all probability, develop them unless managed properly.

Here are the details of the "peripheral vascular routine":

1. Tobacco in all its forms is prohibited.
2. Moderate amounts of alcohol in the form of two to three ounces of Scotch or Bourbon whiskey, daily or three glasses of wine are mandatory.
3. Foods or drinks containing rye grain should be avoided.
4. A foot care program is initiated. This means cleanliness, frequent change of socks and a daily warm foot bath followed by inunction of lanolin after perfect drying.
5. Meticulous care is taken to avoid injuries to the extremities. Corns or callosities should be taken care of by the physician, in a clinic, or at least by a truly competent chiropodist. Every injury, no matter how minor, should be immediately reported to the physician and taken care of by him.
6. Shoes should be roomy enough to permit the patient to wear two or three pairs of woolen socks. If the upper extremities are involved, leather gloves with woolen lining should be worn.
7. Avoid exposure to cold, with especial attention to occupational hazards. Dry cold is less dangerous than wet cold.
8. Buerger's exercises: The therapeutic appliance of postural changes. The patient elevates his extremities and exercises toes and feet (or fingers and hands) for one minute. He then swings around and lets the extremities dangle down for one minute, whereupon he is to rest them horizontally for a third minute. The whole procedure is repeated 10 times, requiring an aggregate of a half-hour. This 30-minute period of Buerger's exercises should be applied at least twice a day.

This routine should be applied in every suitable case without exception. It is the baseline for any additional active special treatment.

The management of chronic venous insufficiency on the other hand, is aimed at facilitating venous deflux. Sleeping with the foot of the bed elevated, the wearing of elastic bandages or stockings and walking exercises with these stockings in place will be the basis. However, the situation is somewhat different here, where we are more frequently faced with the acute genesis of the disease and we shall therefore discuss the different phases of venous disease under their special headings.

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SPECIAL TREATMENT

The treatment of *scalenus anticus syndrome, cervical rib and transverse spinous process syndrome* is entirely surgical. The scalenus anticus syndrome simulated by sleeping habits is met by breaking the habit of sleeping with elevated arm or arms. It is sometimes necessary to force a different habit upon the person by mechanical means.

Sudek's atrophy as all angio-spastic disorders, (including some "causalgias") should be treated by sympathectomy and/or so-called active vasodilators.

Papaverin hydrochloride in intra-arterial injection (large doses—about 0.05 Grams) will effect release of arterial spasm. The accompanying signs of extreme flushing, dyspnea, cough and sometimes circulatory failure make it a not too pleasant and occasional medication. Intravenous injection is also effective if given in sufficient doses. Side effects are more marked on intravenous than on intra-arterial administration. This heroic treatment has its definite place in acute arterial occlusion of all kinds including pulmonary embolism. Treatment with large doses by mouth is still under scrutiny. Doses of 50 to 100 milligrams three times a day are justified in vasospastic disorders and definitely beneficial in so-called "vascular crises" as we so frequently see them, not only in generalized vasospastic disorders, but also in sclerotics and especially in hypertensives.

The theobromine derivatives including *aminophyllin* are worthless in our opinion. *Nitroglycerin* seems to be effective in the visceral circulation only. We have no proof of its effect on the peripheral circulation. *Calcium* causes acute but extremely transient peripheral hyperemia. Spastic vasoneuroses are definitely benefited by prolonged periods of calcium administration preferably intravenously. This regime should be coordinated with psychiatric treatment wherever possible, as most of these vasoneuroses represent psychosomatic disorders.

Histamine is probably confined to the skin in its effects and definitely to the minute blood vessels. We have given the combination of *ascorbic acid* with *histidin* a fair trial, but have not become convinced of its effectiveness.

Ether, intravenously, is an effective vasodilator; too effective in our experience. We have seen more hemorrhages from ether than from anticoagulants. I am not impressed by the results of *acetylmethylcholinchloride* — iontophoresis. The effects of intravenous *typhoid-vaccine* are transient and do not justify the use of so incapacitating a method in spastic disorders.

Tetraethylammonium chloride is often effective in producing vasodilatation in the skin. Its side effects make it undesirable for therapeutic use. Where severe arterial spasm threatens with tissue death, sympathectomy will have to be performed in order to have an effect of some duration.

We have given tetraethylammonium chloride a fair trial in Raynaud's disease, and did not see any results which could be called encouraging. *Priscol,* an imidazolene-derivative, has some usefulness in Buerger's disease. The dose is 50 milligrams three times a day. In contrast to tetraethylammonium chloride, it is effective by mouth and is not associated with such marked and unpredictable drop in blood pressure and/or postural hypotension. It is, however, less useful for diagnostic purposes, because (and this is probably one of its therapeutic advantages) its effect is not so concentrated on the skin vessels as that of tetraethylammonium chloride.

Similar "adrenolytic" effects have been ascribed to *dibenamin hydrochloride* (a chloroethylamine): we have not as yet had sufficient experience with this drug to form an opinion.

There is no question about the beneficial effects of intravenous *procaine* upon arterial spasm. Brodie at the New York University Division at Goldwater Memorial Hospital has been able to show this effect with an alcohol, diethylaminoethanol which is formed from procaine in the body.

We thus have arrived at our most powerful and reliable vasodilators, namely, the different alcohols. The simplest and one of the most efficient is still ethyl alcohol in the form of good whiskey or brandy. Some people object to it, and there are, of course, other reasons

for wanting to have a form which can be administered without marked cerebral effect.

Nicotinic acid has been used in various circulatory disorders for its vasodilating action. Such vasodilation occurs only in cutaneous vessels. *Niacinamide* does not cause any vasodilatation at all. Other compounds containing the pyridine radical, e.g., nicotinic alcohol—(the alcohol corresponding to nicotinic acid) and certain esters of niacin, have been studied by pharmacologists.

We are now investigating the clinical potentialities of *nicotinic alcohol*.† This seems to hold good promise as a vasodilator. We have already seen some remarkable results with it in vasospastic disorders, in certain aspects of Buerger's disease and in a specific group of chronic trench foot cases. These investigations, when concluded, will be reported elsewhere. Probably, a part of the nicotinic alcohol† is converted in the organism to nicotinic acid. Yet, its effects must be attributed to a great extent to the alcohol in its unmodified form as evidenced by the promptness of action, by the fact that both subjective and objective improvement in circulation may be seen without the flushing of the face and neck produced by nicotinic acid and that there seems to be no decrease in reaction calling for gradually increasing doses on prolonged medication, as is the rule with nicotinic acid.

Keep the limb warm! This is a command not only in all angio-spastic, but also in all chronic arterial disease. In such disorders as Sudek's atrophy, diathermy or other heat and massage (infra-red heat is liked by some) may be justified. The more arterial insufficiency is present, the more cautious one has to be in using any of the physiotherapeutic measures. Any little burn, any minor injury may mean disaster.

Post-traumatic segmental arterial spasm may be treated the same way, under steady supervision. If restoration of arterial function fails to take place in a few weeks, sympathectomy is indicated. Proper selection of the sympathetic chain segment, and of course inclusion of the ganglia is paramount in all sympathectomies.

The treatment of *primary Raynaud's disease* was entirely palliative (protection from cold, moving to a warm climate, treatment of associated diseases) up to the time when Leriche did his first stripping of the brachial artery. Today we do preganglionic cervical sympathectomy; but even then, we have much regeneration and the patient is never really cured. It seems, however, that there is a definite slowing, if not stopping, of progress; we have seen the prevention of secondary scleroderma by such sympathectomy.

Secondary Raynaud's phenomenon calls for treatment of any underlying vascular disease and in most cases the treatment of the underlying psychoneurosis. The place for the treatment of secondary Raynaud's phenomenon in the average case is the psychiatrist's office or the mental hygiene clinic rather than the office of the vascular specialist or the circulation laboratory.

Occupational diseases will of course require change of occupation as well as vasodilators. It may sometimes be possible to let the person keep the occupation (which may be hard to change, for example, for a pianist) under the constant use of vasodilators.

Weir-Mitchell's disease (erythromelalgia) is one of the conditions in which, for entirely unknown reasons, salicylates are almost a specific in relief of distress and pain. Cooling of the extremity always will bring temporary relief. The "desensitization to heat", as advocated by the Mayo group, is theoretically perhaps well founded, but has thus far not proved to be the answer. Irradiation of the skin has been said to help; we are sceptical about this. Injection of adrenalin or pituitrin may bring dramatic, but very transient, local relief if injected close to the lesion, subcutaneously.

There is no specific treatment for *periarteritis nodosa* nor for *disseminated lupus erythematosus*. The management is palliative and conservative, in every sense of the word.

The treatment of all *tumors* is surgical. That includes *glomus tumors*, where recurrences of pain may be bothersome even after complete removal, and may occasionally necessitate am-

† Supplied by Hoffmann-La Roche, Inc., under the designation NU-2121.

putation of a distal phalanx. *Kaposi's multiple hemorrhagic sarcoma* is treated by x-ray.

Telangiectases call for no treatment. *Rendu-Osler's disease,* however, should be treated with electrocoagulation of those lesions which give rise to bleeding. The secondary anemia should be treated. When proceeding with electrocoagulation, the liberal use of vasoconstrictors (especially epinephrine) is indicated, because of the great bleeding tendency of the lesions.

In *obliterating endarteritis,* therapy will depend upon the etiology. In addition to rigid vascular routine, luetic endarteritis will be handled similar to the meningo-vascular form. The rare tuberculous type will probably be an indication for streptomycin, as it represents a complication of progressed tuberculosis. Ergotism will lead to an inquiry as to the source of the drug, and the same will be true for lead or heavy arsenical poisoning. Intravenous typhoid fever therapy has its domain exactly here; in obliterating endarteritis of unknown etiology it is our only method of active treatment; the danger of focal or digital gangrene justifies its use. Once gangrene has taken place, one has to wait for a good clear line of demarcation, and then resort to surgery.

Buerger's disease. The treatment of Buerger's disease will be predominantly based upon the vascular routine as outlined under "General Treatment" on page 368 of this paper. We have seen patients in whom Dr. Buerger himself initiated treatment and who have been doing extremely well on just that routine for almost 30 years. In addition to this program, vasodilators are definitely indicated. Priscol may be used. We hope that a better vasodilator in the form of one of the different alcohols (which we are investigating right now) will be available soon. Alcohol by mouth is an important part of the routine right next to the banning of tobacco and the use of Buerger's exercises. Walking should be avoided as much as possible. Buerger's exercises [1] are the only ones which will aid in overcoming arterial insufficiency. Otherwise, pain-producing exercises should be avoided. This is necessary because of the following vicious circle: pain causes spasm, spasm causes increased arterial insufficiency, increased arterial insufficiency causes pain. It is obvious that occupational advice is much needed in this chronic progressive disorder.

Intravenous saline has been used by some workers. They have been giving 250 cubic centimeters of hypertonic saline, usually 5 per cent, three to five times a week. We do not think that this treatment has any value at all. Results attributed to it were obviously due to the simultaneously established vascular routine. On this very same routine, Dr. Buerger had been able to score the same good results years ago without intravenous saline. Incidentally, intravenous saline is not by any means an invention of the authors, who have pronounced it *the* treatment of Buerger's disease. It was first recommended by Mayesima in 1911, under the entirely wrong assumption, that Buerger's was a disease showing increased viscosity of the blood and that by decreasing this viscosity, one could improve oxygenization.

Heat boxes, massages, moist air, etc., are not only useless but also dangerous. The only physiotherapeutic procedures which deserve discussion are: (1) intermittent venous occlusion and (2) the pavex boot or another of the apparatus designed to produce passive vascular exercises (suction and pressure). Their value in Buerger's disease specifically has been far from convincing. The pavex boot is not without danger, because accompanying thrombophlebitides are not rare, and the tendency to ulcerations is great anyway, in a limb with diminished oxygen-supply. Intermittent venous occlusion as introduced by Collins and Wilensky may transiently improve rest pain. In general, however, the damage done during the period of venous occlusion is usually not sufficiently overcompensated by secondary arterial hyperemia on release.

Some cases of Buerger's disease show a pronounced degree of arterial spasm. Very marked intermittent claudication in a case of Buerger's disease with little trophic changes and no tendency to gangrene will make one suspicious of such a state. Once the existence of marked arterial spasm has been established (either by paravertebral block or by tetraethylammonium chloride) preganglionic sympathectomy may

1. Described as item 8, page 368 of this paper.

be indicated. Buerger's disease as such is not an indication for sympathectomy. It seems to us that any beneficial results we and others have seen were due to release of arterial spasm only. Results were accomplished only in cases where this element was marked.

Almost everything about the treatment of thrombo-angiitis obliterans applies likewise to the treatment of *obliterating arteriosclerosis.* Anything we may add in the treatment of obliterating arteriosclerosis will also apply to Buerger's disease, wherever a similar situation arises. Dietary treatment is of great importance in the treatment of arteriosclerosis. Obesity and diabetes are the most important complications. Basically the diet in all arteriosclerotics should be a low fat, low cholesterol diet. In composing such a diet, one should keep in mind that eggs and heavy cream are our biggest sources of cholesterol. Egg white on the other hand may be freely used as all the cholesterol is in the yolk.

Essentially the diet should consist of fruit, fruit juices, coffee, white or whole wheat bread, skim milk, lean meat, vegetables, lean cheese and sweets made with egg whites only. If the person is obese, reduction in total caloric intake must be sought. This indication will arise quite frequently in Buerger's disease because of comparative inactivity. Diabetes must be controlled, and be it said clearly, controlled in the rigid classical sense of Joslin. The poor statistics on incidence of peripheral vascular disease in diabetes with and without control, are most likely due to the fact that what has been called control, is not actually control. As long as diabetics are walking around overeating happily, covering up with insulin and merely kept free from acetone and on not more than one plus sugar in the urine, we shall never decrease the incidence of obliterating arteriosclerosis in diabetes. The control must be by blood sugar and the treatment must be dietary first, supplemented by insulin only as far as necessary. The reasons for that are many and well known. We may mention two things frequently overlooked: one is that elderly people with some degree of nephrosclerosis usually have a kidney threshold for sugar higher than normal. Frequently these patients do not spill any sugar in the urine at all, while their fasting blood sugar may be about 180 or more. The other point is that insulin has the quality of favoring retention of fluid in the tissues; in other words, it inhibits diuresis with all the sequelae of such action upon the circulation.

GANGRENE

Our task in the medical management of the chronic occlusive disorders is to prevent gangrene, not to treat it. The prevention of gangrene is identical with enforcement of rigid vascular routine including all the points made, the proper use of vasodilators, the release of arterial spasm, where it is considerable. Once ulcers are showing, these measures have to be continued and secondary infections have to be treated systemically and locally. The systemic treatment should consist of 300,000 units of penicillin per day until all signs of secondary infection have disappeared. Penicillin is both safer than and superior to, the sulfa drugs in most cases. Local treatment is a matter of taste. One may use furacin, penicillin-cream, or sterile boric acid ointment. The aim is to keep the area clean, covered and rested. The limb must be kept warm without being exposed to the danger of being burnt. As a rule, wrapping in cotton and prevention of mechanical injury by the use of a plain cradle are the methods of choice. Once gangrene has taken place and has been demarcated, the patient must be turned over to the surgeon. While it is possible to aid the surgeon in determining the necessary site of amputation by direct capillaroscopy, this is usually not necessary.

ACUTE OCCLUSION

The management of *acute arterial occlusion,* (whether embolic or thrombotic) will consist of the following measures: (1) intravenous or intra-arterial papaverine; (2) intravenous procaine, or preferably diethylaminoethanol, 4 Grams; (3) keep the limb warm; (4) watch for results for three to six hours; (5) if preliminary results are favorable, continue with vasodilators (give both papaverine and one of the available intravenous alcohols, e.g. nicotinic alcohol);[2] (6) if preliminary results are not favorable, paravertebral nerve block should

be done; (7) in case of good response to paravertebral nerve block, some workers repeat the block every day or so; we prefer to proceed with sympathectomy in case of favorable result of nerve block, whenever the state of the patient and the external circumstances permit; (8) there are workers who like to combine sympathectomy in these cases with ligation of the corresponding vein. We do not see the wisdom of such procedure. While it may represent some prophylaxis in the possible development of thrombophlebitis, it will, on the other hand, so much impede circulation in a severely and acutely damaged limb, that the odds are against it; (9) the treatment of arterial occlusion with anticoagulants is still experimental; (10) if it has been ascertained, beyond reasonable doubt, that the cause of the occlusion is an embolus in an otherwise not evidently diseased blood vessel, (e.g., in heart disease without evidence of peripheral vascular disease) embolectomy should be performed. Thrombectomy with resection of the diseased part of the blood vessel has no well-founded indication; (11) in the follow-up treatment of acute occlusions, which are progressing favorably, the pavex boot and intermittent venous occlusion are being used by some with doubtful results; the use of the vasoscillating bed of Sanders has been recently advocated by the Mayo group and others. It is basically nothing but mechanized Buerger's exercises. Where available, it can also be used in the treatment of chronic occlusive disease.

THROMBOPHLEBITIS

Acute thrombophlebitis and prevention of thromboembolism. In addition to elevation and rest, there are but three basic approaches to this so extremely important problem: (1) anticoagulants; (2) surgical ligation of efferent veins and (3) the combination of both.

We shall have to differentiate cases where embolism has already occurred from those where diagnosis of thrombophlebitis was made before pulmonary embolism. With the tools available now, it seems unnecessary to proceed with venous ligation in the latter group from the very beginning, unless anticoagulant therapy is contraindicated; and it *is* contraindicated in all conditions where there is an increased tendency to bleeding. That will include all blood dyscrasias, all who have liver disease, all purpuric states and a number of rheumatic cardiacs. In these patients, early ligation of veins on both sides is the procedure of choice under all circumstances. Ligation of the femoral veins in deep thrombophlebitis of the calf is a correct and efficient procedure. If the thrombus has extended into the thigh, ligation will have to be done as high as the iliacs; and as ligation of both iliacs is a difficult operative procedure, most vascular surgeons will prefer to ligate the vena cava inferior in such cases, and rightly so; but bilateral femoral ligation, distally to the profunda branch is indicated in the early calf-case and will not be followed by serious impairment of circulation. It is always to be bilateral, even if the process is strictly unilateral, because in the overwhelming majority of cases it will not stay a unilateral process and we all have had the sad experience of pulmonary embolism and death from the non-ligated, silent side. Patients with early diagnosed non-extensive thrombophlebitis in whom no contraindication to anticoagulant therapy exists must be treated with this method.

ANTICOAGULANTS

We have two effective anticoagulants: heparin and dicumarol.[3] Heparin works rapidly, dicumarol [3] slowly. It is best therefore to start with heparin and dicumarol [3] at the same time, giving 100 milligrams of heparin intravenously, followed by two more doses at four hour intervals. The next day, give 100 milligrams intravenously three times at eight hour intervals. At the same time, give 300 milligrams of dicumarol [3] by mouth on the first day and 200 on the second day. After the second day, heparin is discontinued but dicumarol [3] is continued, keeping the prothrombin time at about 20 per cent of normal. Duration of treatment will be guided by clinical observation under laboratory control.

The action of heparin is different from that

2. Supplied by Hoffmann-La Roche, Inc., under the designation NU-2121.

3. Dicumarol is the registered collective trademark of the Wisconsin Alumni Research Foundation which controls the use thereof.

of dicumarol[3] in many ways. Heparin influences the clotting time and an increase in clotting time to about 30 to 40 minutes is the desirable effect. If hemorrhage occurs, it will stop soon after discontinuation of the drug, because its effect is not lasting. Dicumarol[3] on the other hand will take effect only after 48 hours, but bleeding may occur many days after discontinuation of the drug as the prothrombin time may be prolonged for a long while. We have seen the longest value of prothrombin time occurring as late as eleven days after discontinuation of the drug. Dicumarol[3] has the advantage of being a medication by mouth; it has the disadvantage of requiring a reliable laboratory for *daily* determinations of prothrombin time. This may be expressed in seconds or in percentage of normal. Twenty per cent of normal is the desirable level. If expressed in seconds, the laboratory will have to give their "normal" standard. It is dangerous to let the prothrombin level drop during treatment since that may be the occasion for the development of an embolism. Some workers have tried to make heparin administration more practical by using it in Pitkin's menstruum by intramuscular injection. If used without a vasoconstrictor it is extremely painful. To neutralize the pain by using a vasoconstrictor is thoroughly unsound since in these cases, arterial constriction is exactly what we want to avoid under all circumstances; chief objection to this type of administration, however, is that it leads to wild fluctuations in clotting time, making the procedure entirely uncertain.

The danger of hemorrhage through anticoagulant therapy has been grossly exaggerated. If we keep in mind the contraindications outlined above, we will not have much trouble. If bleeding occurs, intravenous vitamin K in large doses (about 70 milligrams) will stop it as a rule. The danger of bleeding is by all means outweighed by the enormous advantages shown in several conclusive statistical studies.

In the second group, where pulmonary embolism has occurred, both ligation and anticoagulant therapy are to be used, unless anticoagulants are contraindicated.

The treatment of the *sequelae of thrombophlebitis* consists in extensive use of elastic bandages and/or elastic stockings. These patients should sleep constantly with the foot of their beds elevated. They should use every possible occasion to elevate their legs, because mechanical aid in deflux from the extremity is all important.

SUPERFICIAL VEINS

The *superficial venous system* is liable to extensive, sometimes saccular dilations, called varicosities. Thromboses are not dangerous as a rule, but should be treated with anticoagulants, if no contraindication exists. Conservative treatment of uncomplicated varicosities consists in the use of elastic stockings or bandages, which have to be put on while the limb is elevated and the varicosities empty. Treatment of varicose ulcers consists of provision for good permanent drainage; thus, severe varicose ulcers have to be treated by rest. Varicosities draining into the ulcer area must be ligated. Dried blood cell foam is said to aid in the treatment; others have recommended chlorophyll preparations such as chloresium; we have had no experience with it. Tyrothricin is helpful in clearing up small ulcers. If secondary infection exists, hot wet dressings and penicillin-cream are indicated. We have seen good results from repeated administration of an Unna boot in some very chronic cases. Sometimes, however, a skin graft may be necessary; its success will depend upon the arterial circulation. Surgical treatment is frequently indicated and should be preceded by testing for competency of the different parts of the venous circulation. The superficial ulcers of chronic perniosis heal easily under scarlet red or peru balsam if cold injury is avoided.

FROSTBITE

The treatment of the acute phase of frostbite (trench foot, immersion foot) is cool wind, best applied by fans, and attention to surgical complications. The interesting experiments by Boyd and his associates with heparinization bear out our opinion on the subject and may become important in the future. Gradual transition to vascular routine should characterize the treatment in the subacute state, while chronic trench foot cases should be carried on

a vascular routine. Specific treatment has not been proved possible as yet, but we are actively engaged in a clinical investigation in that direction.

FISTULAE

The treatment of *acquired arterio-venous fistula* is surgical. The physician has to "stand by" for cardiac accidents. Surgical treatment of *congenital arterio-venous fistulae* is very difficult because they are usually multiple. There is, however, a conservative method, which has proved to be applicable. It is simply the compression of the overlying varices by elastic bandages, just as used in plain varicosities. Even there, one has to watch for the response of the heart, because this bandaging may correct the shunt to a remarkable degree and thus give rise to a sudden increase in peripheral resistance.

UNDERLYING DISEASES

Underlying diseases with secondary peripheral vascular manifestations have to be treated according to the nature of the primary disorder.

If multiple thromboses are due to *polycythemia vera*, treatment of the underlying disease with phlebotomies, irradiation of bones or the use of radioactive phosphorus will also take care of the vascular disturbance. We have no specific treatment for the rare cases of *Nygaard's disease* but anticoagulants should be tried.

Both the male and female *climacteric* may give rise to vasomotor disturbances. They are, of course, best treated by substitution of the appropriate hormone. The usefulness of either female or male sex hormone as a drug in peripheral vascular disturbances, *per se,* has not been established.

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THE RUTGERS INSTITUTE OF MICROBIOLOGY

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long been known that the earth, the air and the water teem with microscopic and ultramicroscopic forms of life which, properly exploited, can become potent alllies in the fight against disease. The secrets of this benign exploitation are not easily given up, and it will take an organization of the stature of the new Institute to fashion the key with which to unlock this treasury of nature. While streptomycin is presently the number one product of the Rutgers research group, it is not the only therapeutic aid, nor, in all probability will it be the most important one, to come out of research in microbiology.

When we of the New Jersey medical profession stop to count our blessings, the new Institute of Microbiology should have a place high on the list.

MANAGEMENT OF PAIN ASSOCIATED WITH DISTURBANCES OF THE INTERVERTEBRAL DISC*

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In most cases of low back and sciatic pain, treatment is mechanical in nature. Since 1934, when Mixter and Barr[1] reported their experiences with herniations of the intervertebral disc, attention has been focussed on mechanical derangements of the disc as one of the leading causes of low back pain and sciatica. To understand this complex syndrome, it is essential to investigate its basic anatomic and pathologic as well as clinical features.

ANATOMY OF THE INTERVERTEBRAL DISC

The disc is a highly specialized organ which functions as a cushion between the adjacent vertebral bodies. There are twenty-three intervertebral discs in the normal vertebral column. The basic structure of all the discs is essentially the same. Each is composed of three distinct parts:

1. *Cartilaginous Plate:* These are thin plates of hyaline cartilage which cover the bone of the body of the vertebrae and limit the disc proper above and below.

2. *Annulus Fibrosus:* This fibrous mass arises from the plates, encloses the nucleus pulposus, and inserts into the bodies of the vertebrae and into the anterior and posterior longitudinal ligaments. It molds the size and shape of the disc and gives it the great part of its strength and tenacity. It bears the strain of torsion and extension of the vertebrae.

3. *Nucleus Pulposus:* This is the semi-gelatinous core of the disc and is contained within the fibrous envelope of the annulus fibrosus. It is the dynamic portion of the disc and bears almost entirely the vertical or weight bearing shock of the vertebral column.

Each component is highly important in itself, but is entirely dependent on the others for efficient function of the disc. Only if the cartilaginous plate is intact will the nucleus pulposus be restrained from flowing into the adjacent vertebrae. The nucleus pulposus, too, is under constant tension and is confined by the annulus fibrosus. Any movement of the vertebral column is accompanied by a shift of the forces in the nuclei. If nuclear material is herniated, or dessicated (as in old age) the intervertebral disc no longer functions to transmit the forces of strain and torsion. Then shock is borne by the vertebrae, the facets, and the ligaments. The annulus fibrosus is an integral part of the shock absorber function of the disc. When the strength of its fibres is attenuated by degeneration or trauma, the nucleus ruptures through its fibrous wall and presses on adjacent nerve roots, causing sciatic pain.

PATHOLOGY

Originally, most of our knowledge of the pathology of the intervertebral disc was gathered through autopsy studies.[2] Today, our observations of disturbances involving the intervertebral disc are made chiefly at the operating table. We[3] have divided these findings into two distinct groups: (1) Disorders of the disc involving the nucleus pulposus and (2) general displacement of the disc as a whole. The commonest of these are direct herniations of the nucleus pulposus. Whatever the cause of the process may be, we have found that it is always a degenerated nucleus that ruptures through the annulus fibrosus. The most frequent nuclear protrusion is that which passes through the annulus but is still confined by the posterior longitudinal ligament. In these cases, the nerve roots may be compressed by one large mass almost blocking the spinal canal and very easy to locate, or by smaller masses lying beneath the articular facet and compressing the nerve root in the intervertebral foramen. These can be located and identified only by a foraminotomy (unroofing the foramen).[4] Another frequent finding[5] is the socalled "concealed disc". This may be noted at operation when

* From the New Jersey Orthopaedic Hospital, Orange, New Jersey.

1. Mixter, W. J., and Barr, J. S.: New England Journal of Medicine, 211:210 (1934).
2. Coventry, M. B. *et al.*: Journal of Bone and Joint Surgery, 27:105 (1945).
3. Briggs, Henry, and Keats, Sidney: Journal of The Medical Society of New Jersey, 43:13 (January 1946).
4. Briggs, Henry, and Keats, Sidney: Journal of Bone and Joint Surgery, 29:328 (1947); and also, Briggs, Henry, and Krause, Jacob: Journal of Bone and Joint Surgery, 27:475 (1945).
5. Dandy, Walter: Journal of The American Medical Association, 117:821 (1941).

the disc is completely exposed and appears somewhat bluish. On palpation the disc is quite soft and the point of the hemostat can occasionally be pushed into it with ease. The annulus, thinnned out posteriorly and laterally, appears degenerated and reflects a similar process in the nucleus pulposus. This process may cause symptoms by ballooning out on weight bearing, thus elevating and compressing the nerve roots. Portions of this disc are found to be uniformly degenerated when removed.

Associated with tissue degeneration of the disc, there is often underlying a deranged or unstable lumbo-sacral joint. This may be demonstrated by roentgenographic studies, or may be suggested by a history of low back pain for several years prior to the onset of the sciatica. The mechanically deranged joint as seen in the roentgenogram may be either a combination of, or any one of the following: assymetrical articular facets, anterior or posterior displacement of the body of the fifth lumbar vertebrae, an increased lumbosacral angle, congenital "transitional" or partially sacralized lumbar vertebrae, and a diminished intervertebral disc space. The increased strain borne by an unstable lumbosacral joint is an important factor in producing the basic pathologic disturbance, namely the degeneration of the intervertebral disc.

CLINICAL MANIFESTATIONS

Clinical findings in patients suffering from disturbances of the intervertebral disc are associated with pain induced by nerve root pressure and the result of compensatory efforts to protect the nerve root from damage.

Pain in the back and in one or both lower extremities are the outstanding complaints. The pain is usually more severe in the extremity and more recently localized there. Many patients will give a history of antedating intermittent low-back pain. The sciatic pain may be accentuated by coughing, sneezing, or defecation.

Body stance is first examined. Lumbar lordosis may be decreased or obliterated. A list of the trunk away from the affected side, the so-called "sciatic scoliosis", indicates a defensive mechanism to relieve pressure on the nerve root by opening the intervertebral space. The pain may be increased by bending toward the involved side. The trunk may show a list toward the affected side. This process relieves pressure by relaxing the nerve root involved, inasmuch as the spinal cord is thus shortened and the roots placed under less tension. Occasionally the vertebral column will remain in the mid-line but will present a kyphosis in the lumbar region, or an obliteration of the lumbar lordosis. The patient will suffer varying degrees of pain when trying to straighten up from the flexed position.

Muscle spasm is often present accompanied by limitation of motion in the lumbar region. We have the patient bend forward, sideways, and backwards, observing not so much the degree of motion as the contours of the lumbar spine during these movements. Involuntary muscle twitching in the back, buttock, and extremities may be noted.

A variety of tests indicate pressure on the nerve roots. Most helpful are the "leg tests". With the patient supine, passive straight leg raising will cause pain simulating the original sciatic pain. This means that the nerve roots are compressed, or that this maneuver flattens the lumbar spine, which in turn threatens the root and produces protective involuntary muscle spasm. With the leg so raised, if the foot is then passively dorsiflexed, the pain is augmented, due to the fact that only the blood vessels and nerves can now shift above the knee. The latter maneuver is almost pathognomic of nerve root impingement. The test can be performed by having the patient sit up with the legs outstretched and then passively flex the head on the chest. This raises the whole spinal cord. If the pain is accentuated, there is positive indication that the nerve root is compressed and bound down.

Muscle weakness is a common objective motor finding, and muscle atrophy on the affected side may be noted in most of the patients, although it may be slight in some cases. The circumference of both limbs should be measured and compared. If sciatic pain has been present for even as short a period as four weeks, the painful limb will be smaller in circumference. Tenderness to light digital press-

ure over the course of the sciatic nerve may be present. Some patients may recall numbness of the skin on the affected side, and others hyperesthesia on the outer aspect of the painful limb.

The other significant tests are those of the tendon reflexes, and diminished sensory perception to light touch and pin prick. Of the reflex changes, the most common is a lost (or definitely diminished) ankle jerk response. This reflex should be tested in more than one position, preferably sitting and prone. Lost or diminished ankle jerk response usually indicates that the first sacral or fifth lumbar nerve roots are involved; at operation compression of these roots is invariably encountered. A diminished patellar tendon response may indicate pressure at the level of the fourth intervertebral disc. I place more reliance on definite reflex change for the localization of the level of the disc pathology than on the distribution of sensory changes. Testing sensation to light touch and pin prick are definite aids in establishing the diagnosis, but have not been helpful in localization of the lesions. The localization of the patient's pain in the involved extremity is also significant and usually quite accurate in the determination of the level of the pathology.

Complete roentgenographic studies of the lower back should be made routinely in all patients complaining of sciatic pain.

There are special tests used as adjuvants to the clinical diagnosis. Spinal manometric and spinal fluid protein level determinations may be performed. We have omitted lumbar puncture in most cases, except when other than disc pathology has been suspected. Myelography may be used when neurologic signs are not convincing. I prefer pantopaque to lipiodal or air myelography for localizations of the disc, but do not use it routinely.

TREATMENT

Methods of treatment for low back and sciatic pain are governed by the factors already described. Great strides have been made in the treatment of this common disability since the surgical efforts of Mixter and Barr.[6] Over a period of several years we have used diverse methods of conservative or non-operative treatment. These include back braces, physiotherapy (infra-red and diathermy), corrective arch supports, lifts under the heels, application of plaster jackets in the forward-flexed position, manipulation, and traction in recumbency. We have manipulated backs under general anesthesia with or without the application of a plaster jacket. Occasionally manipulation and stretching under anesthesia will result in a peroneal nerve palsy due to further protrusion of the herniating mass. Injection of the nerve roots with procaine and pure ethyl alcohol may lead to disaster. The most universally satisfactory method of conservative treatment in our hands has been traction applied to both extremities, with the patient in a recumbent position on a hard mattress, the so-called Buck's extension. According to the pathology noted at operation, the latter seems to be the preferable method in the treatment of the non-operative cases. Disc symptoms are intermittent in nature. Disappearance of these symptoms is probably due to a retrogression of the nucleus into the confines of the annulus fibrosus, or to release of the scar contracture of the nerve roots produced by the impinging mass; or it may be due to a spontaneous abatement of the inflammatory edema of the roots when the threatening mass of the disc retracts. Recumbency and traction will definitely assist these mechanisms. When the acute symptoms subside, a back support in the form of a flexion jacket or brace should be applied.

The operative treatment of disc pathology presents complex problems. The acute, routine herniated nucleus pulposus seldom offers any particular difficulty for almost always the disc pathology is quickly located and easily removed. The operative technic has been adequately described elsewhere. Difficult problems arise in those patients who have enough pain to warrant operation yet in whom the clinical findings are not typical of a disc disorder. Frequently we explore the fourth and fifth intervertebral levels and find nothing to explain the symptoms, no nerve root pressure within the spinal canal itself and no concealed disc. It then becomes necessary to explore the

6. Mixter, W. J., and Barr, J. S.: New England Journal of Medicine, 211:210 (1934).

foramen. This is done by cutting away the overhang of the articular process and exposing the ostium of the foraminal canal. We do not hesitate to do this at either or both the fourth and fifth lumbar spaces. The latter does not always reveal sufficient pathology to account for the symptoms. We have frequently found root pressure within the foraminal canal.

When it is observed that the nerve root compression is caused by collapse of the disc space and subsequent approximation of the pedicles, we gouge out the portion of the pedicles involved and perform a complete foraminotomy.

Following all operations for the relief of disc pathology and after foraminotomies, we complete the operation with a chip fusion of the contiguous vertebral segments, utilizing iliac bone. Fusion following removal of a herniated disc mass is necessary to prevent a later collapse of the disc space with subsequent compression of the nerve roots by the adjacent pedicles. In one case, this happened several years after the removal of a nucleus pulposus without a fusion. With a solid fusion, cases will not show collapse to the extent where surgery will again be necessary. To date we have not seen that happen in any of our cases, some of whom are now asymptomatic for more than six years. When a nucleus has ruptured, the function of the disc, its resiliency and weight-bearing capacity disappear, and the body will attempt to protect the segment by means of hypertrophic productive changes. This lipping along the margins of the articular processes encroach on the foramen and compress the nerve roots. Careful follow-up studies have demonstrated that a fusion will prevent this process.

We have also observed slight diminution in the disc space due to collapse of the disc in which the superior articular processes dig into the pedicle base of the inferior processes. This bony encroachment may also be the cause of pain. Fusion will prevent this type of late disturbance. Whether assymetrical articular facets are the cause of sciatic pain I do not know. It has been considered so by some for several years, and is often considered a factor in producing disturbances of the discs. The same is true of the so-called "acute lumbosacral angle". When either condition is present at the fifth lumbar level, it seems logical to perform a fusion following exploration of the spinal canal. Although we make every effort to remove all nuclear material possible in a degenerated disc to prevent herniation of more material, we can never be certain that all the nuclear material has been cleared out from the intervertebral space, since we are most likely to remove only the degenerated nuclear parts. Perhaps at a later date, more of this nuclear mass may degenerate and be extruded. Fusion will certainly aid in preventing degeneration and herniation of the residual nuclear material. It is always necessary to fuse in the presence of a basicly unstable lumbosacral joint.

SUMMARY AND CONCLUSION

Disturbances of the lumbar intervertebral discs are among the most common mechanical derangements of the back producing low back and sciatic pain. The problems concerned in the treatment of this complex syndrome have been presented. Studies of the pathology encountered at operation may be summarized in two groups: disorders of the discs involving the nucleus pulposus and general displacements of the disc as a whole. The most reliable diagnostic clinical findings are: the straight leg raising tests, diminished or absent ankle jerk responses and the distribution of the pain in the affected extremities. Complete roentgenographic studies are most important.

The treatment of patients presenting low back and sciatic pain associated with disorders of the intervertebral disc may be divided into conservative and operative measures. Recumbency in traction followed by brace support is the most satisfactory conservative method. Operative measures include exploration of the spinal canal for gross herniations of the nucleus pulposus with removal of the tumor mass, exploratory foraminotomies, and chip fusion of the involved segments. Fusion is recommended following all procedures involving the lumbosacral joint and the adjacent intervertebral foramen.

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CLINICAL RESULTS OF THE USE OF PENICILLIN IN SYPHILIS *

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In June 1943, Mahoney, Arnold and Harris[1] demonstrated that penicillin was an effective therapeutic agent in early syphilis. At that time, the armed forces had a special interest in syphilis since the country was in the early stages of World War II. Penicillin, offered many advantages over poisonous arsenic and bismuth. In an effort to obtain quickly maximum information on the optimum time-dose relationship of penicillin, a cooperative study was organized under the leadership of Dr. J. E. Moore, of the Johns Hopkins Hospital. The Army, Navy, U. S. Public Health Service and selected university clinics joined in this study. Schedules of treatment were assigned by a central committee and results of follow-up were combined in a central statistical unit. As a result, we have now, less than six years after its inception, considerable accurate and tangible information concerning the effectiveness of treatment schedules in early, and certain forms of late syphilis. Inadequate schedules were quickly abandoned and forms of penicillin with diminished power to destroy spirochetes were readily detected and discarded. Because of the effective statistical analyses, pitfalls in drawing unwarranted conclusions concerning the results were avoided. As a result of this study, the treatment of syphilis has been advanced beyond the hopes of the greatest optimists; and a method of cooperative research with a therapeutic agent has been established, which has already been adapted to other diseases.

The past four years have witnessed remarkable changes in the types of penicillin available to the physician. The original investigations were carried out with amorphous mixtures. With the development of crystalline penicillin-G, this form has supplanted all others in commercial use. Studies have been conducted to develop action-delaying forms of penicillin. The first of these was penicillin in oil and beeswax. It did provide a form of administration which made the ambulatory treatment of syphilis possible. However, sensitivity to beeswax developed in many individuals. In February 1948, procaine penicillin became available. With this, appreciable blood levels were present 24 to 36 hours after a single injection of 300,000 units. The incidence of sensitivity was low and the injection was painless. More recently, the addition of 2 per cent aluminum monostearate to procaine penicillin has further delayed the absorption, so that, following a single injection of 1.2 million units, measurable blood levels are available for 4 to 5 days. Further advances in these action-delaying forms may be expected, and the day is probably not far distant, when infectious syphilis may be successfully treated with a single injection of one of these yet-to-be-produced forms of penicillin.

In all probability, it is not necessary to maintain a continuously high plasma concentration level of penicillin in a disease in which the causative agent has so long a division time as Treponema pallidum. The day life of this organism is 30 to 33 hours. It would therefore seem justified, from a pharmacologic point of view, to achieve the necessary lethal level only once in this time period. Clinical trials have already indicated that a single daily injection of adequate dosage of either aqueous crystalline penicillin-G, procaine, or procaine with aluminum monostearate is equivalent to the 2, 3, or 4 hourly schedules formerly used.

PRIMARY AND SECONDARY SYPHILIS

Schedules ranging from 600,000 units to 9.6 million units of penicillin have been used in the treatment of primary and secondary syphilis, and failure rates from 3 to 40 per cent have been reported. It is therefore, not surprising that confusion exists among many physicians as to how to treat syphilis. However, in spite of conflicting reports, certain

* Read by invitation at the 183d Annual Meeting of The Medical Society of New Jersey, April 26, 1949. Dr. Webster is Associate Professor of Clinical Medicine at Cornell University. This paper comes from the Department of Medicine of the New York Hospital and Cornell University Medical College, New York.

1. Mahoney, J. F., Arnold, D. C., Harris, A.: Syphilis, Ven. Dis. Inform., 24:355 (1943).

principles are clear. Since the day life of the spirochete is approximately 33 hours, any effective treatment must encompass at least two life spans of approximately 3 days. Mahoney and his associates [2] have recently stated that high levels of penicillin administered over three days would appear to have a failure rate of only 10 per cent. Merrill [3] in a recent report of the cooperative study based on 3000 cases of primary and secondary syphilis treated with crystalline pencillin-G over 7½ days on a two hourly or three hourly schedule reported as follows:

1. 2.4 million units was the optimum effective dose.
2. No statistical difference was observed in any increase in dosage over a total of 2.4 million units.
3. No difference was observed in the 2 hourly and 3 hourly schedules.

In the cooperative study reported by Merrill, cumulative failure rates are used, and arbitrarily all patients developing a clinical or serologic recurrence (or even remaining sero-positive in moderate or high titre at the end of one year) are considered failures. Such an evaluation will include as failures a large number of reinfections and some sero-resistant cases.

Formerly regarded as rare, we now know that reinfection and superinfection are not only possible in man and the experimental rabbit, but are, in all probability, a common occurrence. Why has our attention been suddenly directed to this phenomenon which was formerly thought to be practically non-existent? The sexual habits of the syphilitic patient are not altered by the mere fact that he or she acquires syphilis. Under older methods of treatment such a patient was kept under the influence of arsenic or bismuth for approximately 18 months. Each weekly injection destroyed new spirochetes which had entered the body and, in consequence, reinfection was not observed. Today, with the maximum period of therapy of early syphilis being eight days, the individual is left unprotected for the remainder of the time. It has been suggested that present day rapid treatment methods prevent the development of immunity. However, there is no proof of this. Whatever the mechanism, it is now apparent that many patients who have been adequately treated for primary or secondary syphilis, and who achieve negativity, develop new, darkfield-positive lesions at a different site, with a subsequent rise in serologic titre. More often than not, careful epidemiologic studies will reveal exposure to a case of infectious syphilis. A review of 140 instances of relapse or reinfection at the New York Hospital [4] revealed that 70 per cent of these cases were, in all probability, reinfection with only 30 per cent true relapse or treatment failures.

The total failure rate reported by Merrill [3] in the cooperative study series of 3000 cases of primary and secondary syphilis treated with 2.4 or 4.8 million units of penicillin over 7½ days was 10 per cent at the end of the first year and 12 per cent at the end of the second year. This total failure rate includes all individuals manifesting clinical or serologic evidence of syphilis during the time period included. If one uses the New York Hospital series as a criterion, 70 per cent of these failures could properly be classified as reinfection if evaluated on the basis of history, clinical manifestation, serologic behaviour and epidemiologic information. Others will have remained sero-positive in moderate titre throughout the period of observation (the so-called "sero-resistant" cases) and will have been classified as treatment failures at the end of one year in the present study. If one further deducts these cases which are sero-resistant, but remain clinically well, the total failure rate will be reduced by an additional one or two per cent. Thus it would appear that treatment of primary or secondary syphilis with 2.4 million units of crystalline penicillin-G over 7½ days in all probability is followed by a very low true clinical failure rate—probably less than 3 per cent.

Merrill [3] found no improvement in the failure rate if arsenic and bismuth were added to

2. Wright, R. D., Nicholson, F. P., Arnold, D. C., Mahoney, J. F.: Symposium on Recent Advances in Venereal Disease, U. S. Public Health Service, Washington, D. C. In press. (April 7-8, 1949.)
3. Merrill, M.: Symposium on Recent Advances in Venereal Disease, U. S. Public Health Service, Washington, D. C. In press. (April 7-8, 1949.)
4. Peabody, G., Webster, B.: Amer. J. Syph., Gonor., and Ven. Dis. In press.

the penicillin regime. Minor racial and sex differences reported in the effectiveness of penicillin could be accounted for on the basis of difference in reinfection rates.

In about 60 per cent of patients with primary or secondary syphilis, fever, with or without exacerbation of the mucocutaneous lesions has appeared within 12 hours after the start of penicillin therapy and lasted up to 24 hours. It is accompanied by a leucocytosis. This is the "Jarisch-Herxheimer reaction" and need not be a cause for alarm. The mechanism is unknown.

The greatest advantage of penicillin over metal chemo-therapy is that it is relatively non-toxic. Cutaneous reactions, allergic in nature, occur in less than 1 per cent of patients treated with crystalline penicillin-G. These disappear promptly when the drug is stopped and, in many instances, the concurrent administration of one of the anti-histaminic drugs will allow the treatment with penicillin to be continued.

There is no clear cut evidence of penicillin resistance in syphilis. This is unlike the familiar arsenic and bismuth resistant syphilis and the behavior of common bacterial infections to penicillin.

What of the patient, however rare, who is not cured by penicillin? With this, as with all other forms of therapy for infectious syphilis, careful followup is an important requisite. This should consist of clinical examination and the performance of a *titred* serologic test at monthly intervals. The use of the titred test is essential if adequate progress is to be evaluated. The rate of serologic response follows closely that observed with intensive arsenical therapy,[5] the majority achieving sero-negativity in 6 to 12 weeks. Variations do occur and a small number may continue to show a low titre at the end of one or two years. These represent the sero-resistant group. For practical purposes the cooperative study of the National Institute of Health has defined sero-resistance at the level of 16 Kahn units or 4 dilution units at the end of one year. Whether the eventual outcome of this group will be influenced by further treatment is open to question.

Failures will consist of the group manifesting new clinical lesions and those exhibiting sustained significant sero-relapse during the followup period. These two latter groups require re-treatment whether the cause be reinfection or recurrence of the original infection. There is evidence that re-treatment with the same dosage of pencillin used in the original treatment is effective in these cases. This is an argument in favor of reinfection rather than relapse.

No mention has been made of treatment schemes which combine penicillin and arsenic and bismuth. Advocated early in the history of penicillin therapy of syphilis (on the theory that they exerted a synergistic effect), they gained considerable popularity in spite of the fact that the use of arsenic defeated the major advantage of penicillin: absence of toxicity. With clarification of our knowledge of the value of penicillin, less and less mention has been made of these treatment regimes. It is now generally agreed that arsenic and bismuth have no place in the treatment of syphilis.

Thus, it would appear that primary or secondary syphilis may be successfully treated with 2.4 million units of acqueous crystalline penicillin-G, or procaine penicillin, administered in eight daily doses of 300,000 units each. The failure rate with such a form of therapy is low, probably not over three per cent, if one deducts the probable reinfections. This treatment is not associated with any risk and may be carried out on an ambulatory basis. Prolonged clinical and serologic followup is necessary.

LATENT SYPHILIS

How shall we treat latent syphilis with penicillin? Latent syphilis presents no symptoms or physical signs and is detectable only by serologic test. The use of penicillin in this form of the disease is based on the assumption that, since it is effective in the treatment of early and late syphilis, it may be expected to prevent the development of clinical manifestations in latent syphilis. A post-treatment observation of 10 to 20 years will be necessary to determine

5. Moore, J. E.: *Penicillin in Syphilis.* Chas. Thomas and Sons, 1946, Springfield, Illinois. Page 131.

if penicillin offers the 95 to 98 per cent chance of cure that is offered by heavy metal therapy in latent syphilis. Preliminary studies have indicated that adequate treatment with penicillin will produce a slightly better incidence of sero-reversal in early latent syphilis than will the 26 weeks arsenic-bismuth regime. At the New York Hospital, latent syphilis is treated with 600,000 units of procaine penicillin twice weekly for 6 weeks —a total of 7.2 million units. Over 70 per cent of cases of early latent syphilis treated by this method have shown a sustained sero-reversal. The Army[6] recommends 600,000 units daily for 10 days, totalling 6 million units. In general, the recommendations for latent syphilis increase the time period of administration over that for early syphilis. A certain proportion of cases of latent syphilis will remain sero-resistant irrespective of the amount of treatment given them. Penicillin will not reverse the serologic test in a patient who has proven sero-resistant to adequate arsenic therapy. It behooves the physician to evaluate the adequacy of previous therapy and determine whether a given case of latent syphilis has had sufficient therapy and is sero-resistant or whether it needs treatment with one of the penicillin schemes.

SYPHILIS IN PREGNANCY

Previously untreated syphilis discovered during pregnancy may be handled by the approved schedules for the penicillin treatment of early syphilis. There are no toxic reactions and, because of the rapidity of treatment, a normal infant can be expected, even if the disease is discovered late in the pregnancy. Although for many years it has been the custom to re-treat syphilitic mothers during each pregnancy, considerable doubt exists as to the necessity of this. Goodwin and Farber[7] in 1948 reported on 570 pregnancies in women previously treated with heavy metals and penicillin, and allowed to go untreated through the pregnancy. Ninty-two per cent of the infants were born alive and no evidence of syphilis was noted in either the living or the stillborn infants. Since that time, other clinics have reported similar results. It would now appear to be safe to allow a mother to go untreated through a pregnancy provided:

1. She has had adequate therapy prior to the pregnancy.
2. She shows no clinical evidence of activity of the disease.
3. She is sero-negative or sero-positive in low titre (less than 16 dilution units).

CARDIOVASCULAR SYPHILIS

If untreated, approximately 10 per cent of all cases of early syphilis will develop cardiovascular involvement. The clinical picture varies widely depending on the extent and site of the pathologic process. Briefly they may be classified as follows:

1. *Uncomplicated aortitis*—manifested only by infiltration of the aortic wall, with or without diffuse dilatation (5.3%).
2. *Aneurysm*—due to the destruction of elastic tissue and the consequent localized saccular dilatation (1.2%).
3. Encroachment of the lesion downward on the aortic leaflets with resulting aortic insufficiency (2.7%).
4. Encroachment of the lesions on the coronary ostia—with characteristic symptoms (approximately 0.5%).
5. Syphilitic myocarditis (approximately 0.2%).

The problem of clinical recognition of cardiovascular syphilis before irreparable anatomic damage has been done is an important one. Uncomplicated aortitis presents the greatest difficulty in this regard. All cases of late syphilis should be carefully evaluated for the presence of early aortitis. Although there is disagreement among students of the disease on this point, we believe that the following clinical criteria are of importance.

1. X-ray demonstration of dilation of the first portion of the aorta.
2. Demonstration of dilation of the aorta by angiocardiography.
3. Lowered cardiac reserve with absence of hypertension of valvular disease.
4. Characteristic changes in the aortic second sound.
5. Moore[8] stresses the significance of localized substernal pain (differentiated from anginal pain as not being influenced by exertion nor referred down the arm).

6. Management of Venereal Disease, Dept. of the Army, TB-Med.-230 (1949).
7. Goodwin, M. S., Farber, M. S.: Recent Advances in the Study of Venereal Disease, VD Education Institute, Washington, D. C., 254 (1948).
8. Moore, J. E.: *The Modern Treatment of Syphilis*, Chas. C. Thomas, 1944, Springfield, Illinois, 2nd Ed.

In spite of the most painstaking examination and history, a large number of cases will escape clinical diagnosis.

Although there are still some skeptics, we believe that it has been definitely established that the treatment of cardiovascular syphilis with anti-syphilitic agents brings about alleviation of symptoms and probable prolongation of life. Data collected by Moore [8] and more recently at the New York Hospital [9, 10] indicates that the prognosis of syphilitic heart disease is considerably better than standard textbook accounts would indicate. Whether improvement in the pathologic lesion in cases which receive adequate anti-syphilitic therapy parallels the clinical improvement is still problematical. Restoration to normal structure of an aorta once damaged by syphilitic aortitis is not to be expected; but an arrest of the disease by means of anti-syphilitic therapy, with the formation of a fibrous scar and the regression of inflammatory cellular infiltration in the tissues would seem to be a possibility.

There are in the medical literature surprisingly few accounts of the comparison of the pathologic picture in treated and untreated syphilitic aortitis. Webster and Reader [11] have reviewed the microscopic findings in the aorta in 45 cases of this disease—approximately half of which received adequate anti-syphilitic treament and the other half of which received little or no treatment. All of the untreated cases showed evidence of an active syphilitic process in the aorta—as manifested by endarteritis, perivascular lymphocytic infiltration, and the presence of plasma cells. On the other hand, in the adequately treated group, 84 per cent failed to show evidence of activity. Although the series is small, the results would seem to be in keeping with the concept that adequate anti-syphilitic therapy of syphilitic aortitis brings about an arrest of the active syphilitic process associated with relief of symptoms and probable prolongation of life.

In any consideration of the treatment of cardiovascular syphilis, it is important to remember that the adequate treatment of early or latent syphilis will entirely prevent cardiovascular involvement. Amounts of treatment which are totally inadequate to prevent neurosyphilis will prevent the development of cardiovascular lesions.

Once lesions have developed in the aorta, the aim of treatment would seem to be the arrest of activity in these areas. There are certain essentials on which the formulation of a treatment scheme for any patient with cardiovascular syphilis are based. These are:

1. A clinical evaluation of the location and extent of the anatomic lesion and the consequent physiologic disturbances.
2. Permanent limitation of physical activity to a degree dictated by the extent of involvement.
3. General medical care with special reference to the use of digitalis and mercurial diuretics.
4. Specific anti-syphilitic treatment.

Prior to the advent of penicillin, there was fairly general agreement that, once compensation was restored, the treatment of uncomplicated aortitis, syphilitic aortic insufficiency and aneurysm should consist of two years of alternate courses of bismuth and arsenoxide.

Since so much uncertainty exists as to the effect of heavy metal treatment on cardiovascular syphilis, no estimate of the value of penicillin is possible. A full evaluation can be made only after many years of observation of treated cases.

Individual clinics are carrying out experimental treatment of cardiovascular syphilis with penicillin. Moore [12] suggests the use of 5 to 10 million units over 15 to 21 days. The Veterans Administration [13] recommend 6 million units over 15 days.

At the New York Hospital, patients with cardiovascular syphilis receive 300,000 units of penicillin daily for 14 days, followed by 300,000 units twice weekly for 10 weeks. This makes a total of approximately 10 million units.

The great increase in the time period over which the patient receives treatment is prompted by the observation that healing of the lesions

9. McDermott, W., Tompsett, R. R., Webster, B.: Amer. J. Med. Sciences, 203:202 (Feb. 1942).
10. Reader, G. G., Romeo, B. J., Webster, B., McDermott, W.: Annals of Int. Med., 27:584 (October 1947).
11. Webster, B., Reader, G. G.: Amer. J. Syph., Gonor., and Ven. Dis., 32:19 (January 1948).
12. Moore, J. E.: *Penicillin in Syphilis*, Chas. C. Thomas, 1946, Springfield, Illinois. Page 131.
13. The Treatment of Syphilis, TB-Med.-10-24. Veterans Administration, Washington, D. C., 1947.

of cardiovascular syphilis progressed more slowly under older methods of therapy than lesions elsewhere.

Fear that a Herxheimer effect might result from the treatment of cardiovascular syphilis has been expressed by many writers. Experience has proved that this is not the case and that previously untreated patients can be started on full doses of penicillin with safety.

NEUROSYPHILIS

Since the outcome of treatment in neurosyphilis is predominately dependent on the type of the disease present, it is advisable to discuss the classification of neurosyphilis.

1. *Inflammatory Types:*
   (a) Asymptomatic neurosyphilis
   (b) Acute syphilitic meningitis
   (c) Diffuse meningovascular syphilis
2. *Degenerative Types:*
   (a) Tabes dorsalis
   (b) Paresis
   (c) Primary optic atrophy

The combinations, in varying degree, of these lesions in most patients with neurosyphilis is the root of the difficulty of accurate clinical diagnosis and subsequent evaluation of therapy. The degree of degeneration of nerve tissue which has occurred before treatment is begun, determines the extent of failure of any form of therapy.

Opinion is divided as to the role of penicillin in the treatment of neurosyphilis. One school of thought feels that it may be used alone; the other recommends concomitant penicillin and malaria as the treatment of choice. There is universal agreement that penicillin alone, in dosage ranging between 2.4 and 6 million units over a 2 week period will accomplish as much as two years' treatment with heavy metals.

Gammon [14] has reported recently on the pathologic examination of brain tissue of paretics previously treated with penicillin. With the exception of one case which had received the penicillin only three weeks before death, they showed tissues cleared of the inflammatory signs usually seen in paresis.

A paradox of the penicillin treatment of neurosyphilis is that excellent results are obtained after the intra-muscular administration of the drug, although penicillin cannot be demonstrated by the usual technics in the spinal fluid, if the dosage is relatively low. This led earlier workers to administer the drug intra-thecally. The hazards were such that this has been abandoned.

The results of treatment of neurosyphilis may be evaluated in two ways:

1. The cell count, spinal fluid protein, colloidal gold, and Wassermann compliment-fixation tend toward normal, in the order named.
2. Clinical improvement may be evaluated.

A combination of the two would appear to be best.

The results of treatment of the inflammatory types of neurosyphilis (asymptomatic neurosyphilis, acute syphilitic meningitis, and meningovascular syphilis) with 4.2 or more million units of penicillin in 300,000 unit daily dosage for 14 days are excellent. Cell count and protein levels reach normal in about six months and the complement fixation tends toward normal. Improvement may continue up to 24 to 36 months after cessation of therapy.

Disagreement exists as to whether the degenerative forms of central nervous system syphilis (tabes, paresis and primary optic atrophy) should receive penicillin alone or penicillin with concurrent malaria. Stokes, Steiger, and Gammon [15] have used penicillin alone. Seventy-four per cent of spinal fluids were either rendered normal or were markedly improved. Marked symptomatic improvement occurred in 46 per cent of paretics and 33 per cent of tabetics. Rose and Solomon [16] have used concurrent penicillin and 4 to 6 paroxysms of induced malaria. These authors, working in a psychopathic hospital may see more advanced paresis than some of the other reporting clinics. Regarding "improvement" as ability to be discharged from the hospital, they found 67 per cent of their paretics in that category following penicillin and malaria. In addition, some of their cases received shock

14. Gammon, G. D., Lewey, F. H., Dillon, H., Schwarz, G., Stokes, J. H.: Symposium on Recent Advances in Venereal Disease, U. S. Public Health Service, Washington, D. C., In press (April 7-8, 1949).
15. Stokes, J. H., Steiger, H. P., Gammon, G. D.: Amer. J. Syph., Gonor., and Ven. Dis., 32:28 (January 1948).
16. Rose, A. S., Solomon, H. C.: American Journal of Psychiatry, 104:470 (January 1948).

therapy. They found that those cases with an affective syndrome offered a better prognosis than those with a schizophrenic one.

At the New York Hospital, we use 4.2 million units of penicillin alone in a daily dosage of 300,000 units for 14 days in all forms of central nervous system syphilis, except primary optic atrophy.

The patients are followed as to clinical improvement and spinal fluid changes. If no improvement occurs at the end of one year or if the patient regresses at any time, tabetics and paretics are retreated, either with penicillin alone or with penicillin and malaria depending on the severity of the case.

In view of the inadequacy of available data and the urgency of the situation, it appears to be generally agreed that patients with primary optic atrophy should receive the benefit of both penicillin and malaria.

SUMMARY

Penicillin treatment of all forms of syphilis offers a safe, rapid, and in most forms, a moderately sure method of therapy; 2.4 or more million units of crystalline penicillin-G given in eight daily doses of 300,000 units each, provide adequate therapy for primary and secondary syphilis and result in a failure rate probably as low as 3 per cent.

Latent syphilis and cardiovascular syphilis, by analogy, in all probability, may be successfully treated with penicillin. The latter perhaps will require treatment over a longer time period.

Disagreement exists over the best method of treating central nervous system syphilis. The inflammatory forms of this disease (asymptomatic, acute syphilitic meningitis, and meningovascular syphilis) may be successfully treated with 4.2 million units of penicillin given over 14 days. In the opinion of many observers, the same therapy is effective in tabes dorsalis and paresis. Others advocate concurrent penicillin and malaria in these forms of the disease. Further investigation on a long range basis should provide the answer to this question.

Much has been accomplished since penicillin was first used in the treatment of syphilis in 1943. The future would seem to lie in the development of action-delaying forms of penicillin which would tend to shorten the period of treatment and in the development of newer antibiotics which have a stronger spirochetocidal power.

525 East 68th Street

ATTENTION DERMATOLOGISTS

Plans for the formation of a New Jersey Dermatologic Society are now in the embryo stage. Skin specialists interested in getting in on the ground floor are asked to communicate directly with Dr. H. C. Goldberg of 7 Watchung Avenue, Plainfield.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

The American Congress of Physical Medicine will hold its scientific and clinical session September 6, 7, 8, 9 and 10, 1949, at the Netherland Plaza Hotel, Cincinnati, Ohio. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, instruction courses will be held September 6, 7, 8 and 9. These courses will be offered in two groups. One set of ten lectures will consist of basic subjects and attendance will be limited to physicians. One set of ten lectures, more general, will be open to physicians as well as to physical therapy technicians registered with the American Registry of Physical Therapy Technicians. Full information may be obtained from the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

CANCER OF THE LUNG WITH METASTASIS TO THE SKIN *

N. J. FURST, M.D., L. SCOVERN, M.D., and H. QUITTNER, M.D., Newark, N. J.

Carcinomatous metastases to the skin are not rare. Arkin and Wagner found seven cases of skin metastasis in 74 autopsies on cases of carcinoma of the lung, a ratio of ten per cent. A similar incidence has been found in our own records. Thus, in reviewing 46 cases of bronchiogenic carcinoma at the Newark (N. J.) Beth Israel Hospital, we have found four of skin metastasis.

Metastases to the skin are usually multiple, discrete, nodules, either intracutaneous or subcutaneous. Single, solitary, ulcerated nodules without involvement of underlying tissue are extremely rare and always confusing when they do occur. Of 442 metastatic skin tumors in the collected literature, only 28 were solitary tumors, and only 19 of these were of carcinomatous origin—a ratio of 4 per cent. The infrequency of solitary skin metastases makes the following case report of special interest.

An 80 year old white female was brought to our Tumor Clinic on January 22, 1948, because of a large ulcerated lesion in the region of her right temple. This had started a year before, first as a "pimple" growing progressively larger and finally ulcerating. Her local doctor had been treating it for eight months with penicillin ointment in the belief that it was a diabetic ulcer. The patient was a known diabetic, but had not taken insulin for several years.

There were no symptoms associated with the lesion and no other complaints, except that for the past few days, she had been rather "cloudy" and had been feeling weak.

Examination revealed a large, ulcerated lesion near the right forehead, measuring 3 by 4 centimeters. The edges were elevated and firm; the center ulcerated, and its base covered with slough and dried blood. The lesion was freely movable except for one point at the anterior edge of the lesion where there was partial fixation to the outer margin of the supraorbital ridge.

The rest of the physical examination was negative. No regional lymph nodes were enlarged. Chest, abdomen and extremities were negative. The impression was that we were dealing with a primary skin cancer.

The patient was admitted to this hospital on the same day. She was found to have 3-plus sugar and 4-plus acetone in her urine, and a blood sugar of 333 milligrams per cent. Her diabetes was brought under control and she was maintained with insulin and diet during her stay.

On the day after admission, a biopsy of the lesion was done in the Tumor Clinic. The next day, an x-ray of the skull showed multiple areas of neoplastic metastases. Multiple myeloma was also considered.

A dermatologic consultation was obtained and the impression was "basal squamous epithelioma with metastases to skull." However, an incisional biopsy threw a different light on the picture when it was reported as "infiltrating anaplastic carcinoma".

Chest x-ray on January 29 showed possible neoplastic infiltration in the region of the right middle lobe, and threw suspicion on the lungs as the source of primary lesion. X-ray of the pelvis was negative.

Palliative radiation therapy to the lesion on the forehead was started on January 30, and given in daily doses of 300 roentgens over a period of two weeks for a total of 3000 roentgens (air).

On February 11, the patient appeared drowsy and dyspneic. She had been running an irregular fever. Repeat x-ray of the chest revealed a massive pleural effusion on the right, with irregular bronchopneumonic infiltration of the left lung field.

On February 15, thoracentesis was performed, and 750 cubic centimeters of an orange-yellow fluid were removed. This was negative for organisms on smear and culture, and no mitotic figures were found.

On February 20, one week after completion of the x-ray therapy, the lesion on the forehead was again examined and no appreciable change was noted. The patient's general condition was poor. She was semi-stuporous and died on February 21. Autopsy findings were:

There was a firm, freely movable, circular lesion in the skin at the outer border of the right supraorbital ridge. The edges were elevated and the center was necrotic and depressed. It was 3 centimeters in diameter.

The right pleural cavity contained 700 cubic centimeters of amber serous fluid. There were many metastatic nodules on the visceral and parietal pleura and many of the ribs and interspaces on the right side were involved. On section of the right lung, a large tumor-mass occupied half of the middle lobe. A few small nodules were present in the upper lobe. A firm, grey lesion, 5 millimeters wide, partly obstructed the lumen. It involved the wall and was situated 10 millimeters from the origin of the right lower bronchus. The bronchioles peripheral to the lesion were dilated and contained mucous plugs. Some tracheobronchial nodes were enlarged and contained cellular tissue. The lower right side of the pericardial sac was adherent to the right pleura because of metastatic tumor infiltration. The liver contained several small metastatic nodules. The spleen was enlarged and soft; its

* This is the second part of the 1948 Tumor Conference, Newark (N. J.) Beth Israel Hospital.

capsule was thickened. The adrenals were not involved. Both kidneys contained small, grey metastatic nodules beneath the capsule. The thyroid was enlarged, in a colloid state, and contained three calcific adenomata. Many of the vertebrae contained large, soft grey nodules.

Microscopically, the tumor was seen to arise from the epithelial and submucosal layers of the bronchus. It was anaplastic and consisted of spindle and round cells with numerous mitotic figures. Tumor cells filled the large lymphatics and veins draining the primary site.

201 Lyons Avenue

MALIGNANT MELANOMA *

Samuel Roth, M.D., Jack Bleiberg, M.D., William Antopol, M.D., and Andrew Rados, M.D., Newark, N. J.

Malignant melanoma is a new growth developing from cells characterized, as a rule, by their ability to produce melanin. Most investigators agree that these tumors arise from ectodermal tissues and are, therefore, melanocarcinomas. Malignant melanoma, in the early stages, often appears as a small blue-black or brown-black papule of firm consistency which may enlarge with varying rapidity. Often such lesions do not begin to grow until they are traumatized. The whole lesion may become swollen and darker in color. Bleeding may be an early symptom of malignant transformation and it may follow the secondary scaling and crusting from proliferation and mechanical erosion. After a time, the growth may become nodular with a broad or pedunculated base. The tendency to peripheral extension may predominate, or the tumor may extend to the deeper layers of the skin and infiltrate the underlying structures. Any part of the body may give rise to melanotic new growth, but the face and lower extremities are the sites of predilection, especially the toes, soles and heels.

Malignant melanoma has a greater tendency to metastasis than any other neoplastic growth. Careful search must always be made for a primary tumor. One must look for scars or question patients as to removal of growths from skin to arrive at a diagnosis of metastatic lesions distant from original growth. The diagnosis of malignant melanoma usually is not difficult when its typical features have developed. However, when a pigmented nevus, present without change for many years, begins to enlarge, it may be difficult to determine clinically whether malignant changes have occurred. A quiescent malignant melanoma may clinically appear as a benign pigmented nevus. The rapid rate of growth should arouse suspicion of the highly malignant character of the lesion.

The prognosis of an actively growing malignant melanoma is usually unfavorable. If metastatic lesions are present in the skin, the internal organs are probably affected.

A primary malignant melanoma may occasionally be successfully removed if treated before metastasis has taken place. Such a lesion on the head, neck, thigh and upper arms should be excised widely by cautery knife. The excision should be done by cutting a truncated cone section beginning some distance away from the lesion with the broad base downward.

The entire mass should be removed with as little manipulation of the lesion as possible. Cosmetic consideration must always be secondary. Simple removal of a malignant melanoma with the line of excision close to the lesion is inadequate and dangerous. Special emphasis must be given here to the so-called prophylactic treatment of malignant melanoma. It has been suggested that all pigmented nevi should be removed to prevent malignant development. Since almost everyone has a number of pigmented nevi and malignant melanoma is of such comparatively rare occurrence, this procedure seems impractical. Most dermatologists believe that there is no urgent need to remove

* This is the third part of the 1948 Tumor Conference, Newark (N. J.) Beth Israel Hospital.

(except for cosmetic reasons) a pigmented nevus which is not exposed to irritation. If a pigmented nevus begins to enlarge, it is safer to treat it as a malignant melanoma. Prophylactic removal of a benign pigmented nevus may be warranted when it is exposed to repeated irritation, such as friction of a collar, belt or shoes, or lacerations from shaving.

The treatment of a suspected malignant melanoma by inadequate methods, such as cauterization with acid, carbon dioxide (solid), electrolysis, or electro-dessication, is definitely contra-indicated and dangerous. Such methods offer little prospect of complete destruction of malignant new growth and on the contrary are extremely dangerous as some believe that it may stimulate a quiescent malignant melanoma to become active.

Pack [1] states that in reviewing the end results of the treatment of melanoma at the Memorial Hospital, the number of five year survivals without recurrence was only half as good in the group of patients whose ages extended from puberty to twenty-five years as it was in the older age group. A microscopic diagnosis of malignant melanoma in the skin tumor removed during infancy and childhood does not call for more radical surgery, such as extremely wide excision and skin grafting and dissection of regional lymph nodes, provided the child has not entered the pubertal stage. This last statement was based on a series of over 900 cases of malignant melanomas.

The melanosarcomas of the uvea are extremely malignant, the prognosis very unfavorable, and the patients die of generalized metastasis even after comparatively early enucleation in which the tumors are small and have not invaded the sclera or orbital tissues. The longest case on record died seventeen years after the removal of the offending eye. The most common locus of metastasis is the liver and the bone marrow. The lack of involvement of the lymph glands and vessels led the early observers to the designation of melanosarcoma. These tumors occur most frequently in the choroid, less frequently in the ciliary body, and infrequently in the iris. They are always pigmented, the pigmentation showing wide variation. In the same tumor, unpigmented portions are adjacent to highly pigmented areas. Usually the middle-aged, but exceptionally, younger individuals are also affected. The literature contains one case where the victim was a three year old child. In our experience, the youngest was a seventeen year old girl with a tumor of the iris and of the ciliary body. The involvement of the orbit is much rarer. We have had three cases in which an exenteration of the eye socket was performed because of melanotic tumors originating in the episcleral tissue and the sheets of the optic nerve.

201 Lyons Avenue

FIFTY YEARS AGO

FROM THE REPORT OF THE COMMITTEE ON PROGRESS OF DISEASES OF THE NOSE AND THROAT, 1899: "Recent bacteriological investigation has shown that the accessory sinuses of the nose are apt to be infected during inflammatory or infectious conditions. . . In 146 autopsies, Frankel found that 63 showed sinus trouble. . . Hypertrophy of the lymphoid (so-called 'adenoid') tissues of the nasopharynx continues to be a topic of highest interest. Their potency for harm is so great, the relief which follows their removal so immediate, that their consideration is a proper occasion for enthusiasm. All honor to the memory of Dr. Wilhelm Meyer, who demonstrated a successful method for their ablation. Countless thousands will hold his work blessed. . . Heroin is a wonderfully efficient sedative to the respiratory tract and has comparatively little toxicity in comparison with codeine and morphine. It yields astonishing results in allaying coughs." (From pages 84 to 87 of 1899 *Transactions of The Medical Society of New Jersey.)*

1. Pack, George T.: Surgery, Gynecology and Obstetrics, 86:374 (March 1948).

PATHOGENESIS OF ATOPIC ECZEMA*

WILLIAM J. SWEELEY, M.D., Montclair and Caldwell, N. J.

Atopic eczema by reason of its chronic nature, disabling character, and its considerable incidence through practically all strata of society ranks foremost among skin diseases. This disease beginning often in infants, relapsing usually in childhood until adolescence but often running a chronic course in childhood becomes almost an unbearable burden to the parents and the patient: it affects and alters his future, choice of occupation and marriage. The intense pruritus may alter or affect his psychic equilibrium and hamper his personality development. The prolonged treatment of these unruly, high-strung individuals with their disturbed night's rest involves much strain on the members of the household. While at school they frequently have difficulties in pursuing their studies although they are usually highly intelligent. Their concentration and their ability to work are lessened. It is not unusual for them to abstain from school for one to several years and occasionally indefinitely. Their social relations are affected depending on the severity and the localization of the eruption. As an adult earning a livelihood, the place of occupation is often not to his liking or ability.

Atopic eczema is a disease of many names—in Europe is it usually called Besnier prurigo. In the United States it is also called neurodermatitis disseminata and allergic eczema. Besnier[1] in 1892 described it as a specific affection which he named *prurigo diathesique.* Hebra[2] in 1884 described a complex of symptoms which would simulate the clinical picture as seen today. He believed that it was of fungus origin by designating it *dermatomycosis diffusa flexorum.* However, today this confusion would be unlikely, although when it occurs on the hands and feet as it occasionally does, a differential diagnosis from fungus infection is justified. Prurigo and eczema were in a confused state then, and it remained for Besnier to place it in its niche, as known today. He regarded the disease as a diathesis. His view that it was a specific disease gained slow acceptance. In 1905 Rasch[3] suggested the name "Besnier's prurigo". Like Besnier, he considered the visible eruption secondary to the pruritus. This view is still dominant. Walzer[4] states that the primary condition is not the papule but is the pruritus. Besnier's clinical description of the disease in 1892 was further clarified and supplemented during the next 25 years.

In Besnier's time as now it was established as a chronic skin disease, generally very pruritic; with sudden exacerbations, which are often seasonal. It usually makes its appearance in infancy but also later in puberty and may, with periods of freedom from symptoms, continue up to adult age, but with tendency to decrease in frequency and severity after the age of 30 to 35. Occasionally the disease may clear at puberty. There are, however, notable and frequent variations. I have under observation now a patient who has had it for three years with its onset in the army at age 43.

In infants, lesions appear mainly on the face and the extensor surfaces of the limbs at three to six months of age, receding usually by the 18th month. In older children and adults, lesions are localized to the flexor surfaces of the extremities and the neck while the facial lesions recede. The lesions are usually symmetrical although assymmetry does occur. I have in mind now a patient (diagnosis verified by biopsy) with lesions frequently exudative, limited to the right cubital fossa and the right side of the upper lip. In these ages, the lesions are likely to asume the character of red, lichenified plaques usually a confluence of papules with possibly sparsely distributed pruritic papules about the periphery. Occasionally the lesions become suddenly exudative. This is common in infancy giving the lesions a crusted appearance. There is often a history of asthma or hay fever in the patient, or in some member of his family. This diagnosis is relatively easy, especially in the adults.

Hebra[2] thought it a fungal infection. Besnier[1] on the other hand considered it to be of constitutional origin — a "diathese prurigineuse". He was also aware that hereditary factors played a part since several individuals in the same family may have the same affliction.

* Presented at the Annual Meeting of the Allergy Section of THE MEDICAL SOCIETY OF NEW JERSEY, Atlantic City, April 26, 1949.

1. Besnier, M. C.: Annal. de dermat. et de syphil., 1:634 (1892).
2. Hebra, v. H.: *Die krankhaften Veranderungen der Haut.* Braunschweig, 536 (1884).
3. Rasch, C.: Hudens Sygdomme og deres Behandlung, Kobenhavn, 354 (1902-1905).
4. Walzer, Abraham: Personal communications to the author, (Oct. 1948).

Rasch[3] observed the disease in nervous and restless children.

Von Pirquet[5] at the beginning of the 20th century introduced the concept of allergy—by which he referred to the changed mode of reaction that an organism acquires when it is passing through an infection or is treated with a bacterial or other foreign substances.

In 1912 Schloss[6] demonstrated the urticarial reaction to cutaneous tests with protein allergens, on children with infantile eczema, and the disease might therefore be of allergic origin. The fact that a person having atopic eczema also had asthma contributed to this allergic hypothesis. Positive skin testing to one or several substances in atopic eczema, plus a history of acute exacerbation on ingestion, or contact with some substance to which he was sensitive, and amelioration on abstention or freedom of symptoms after removal from contact, gave further evidence of allergic origin.

It is generally agreed that atopic eczema has its origin in constitutional and hereditary factors. This theory has not been ousted by the application of the allergic doctrine. It had its early conception and confirmation in the fact that it was associated with other allied allergic diseases and frequently demonstrated among several members of the family, generation after generation.

Relative to the role of infection in atopic eczema it is often observed that a common cold causes a flare-up—on the other hand a respiratory infection other than a cold would cause a remission—remissions are often seen following measles or pneumonia. Many cases of infantile eczema improve rapidly following a febrile period.

The role of human dander as a factor in the production of atopic eczema has been extensively studied by Simon.[7] He thought it an important factor two years ago. In 1947 after a study of a larger series of cases he found that diminished contact with human dander, as carried out clinically had little influence on the clinical course of the disease.

Dermatologically, atopic eczema is, in fact, an eczema anatomically similar to what has been called in this country "contact dermatitis", occurring as a rule, however, in a particular type of individual whose immunologic processes differ in certain respects from those of a normal person. For this reason it is called atopic dermatitis. It is characterized by erythema, edema, papules, vesiculation, oozing, weeping and later on (with super-imposed trauma), thickening, lichenification and pigmentation. For this to happen, irritation of the superficial vessels of the skin is necessary. Erythema is due to congestion of these vessels over a diffuse area, maculation to congestion in a smaller area, papulation to escape of cells, spongiosis and vesiculation to the escape of fluid. The superficial vessels extend upward to the epidermis in the papillae of the corium. The epidermis having no vessels, it is unlikely that skin changes in atopic eczema originate in the epidermis. Eczema is essentially a seepage of fluid and cells upwards into the loosely packed cells of the epidermis, forcing them apart; a water logged condition of the epidermis is produced, manifested externally as vesiculation or weeping. If the vessels of the skin which lie deeper are irritated, and particularly if the insult is sudden and violent, serum is outpoured quickly into the corium producing an urticarial eruption on the surface—there is no seepage to the surface. On a surface, a wheal is seen but no weeping because the fluid is retained below by the tough overlying stroma. The process is much the same in eczematous reaction on the epidermis except the process is slow and much less violent.

Histologically Sachs[8] has described the neurodermatitic reaction in atopic eczema. It is a pathologic process characteristic in the following dermatoses: neurodermatitis disseminata, neurodermatitis circumscripta, (these two are identical), nummular eczema, so-called postular psoriasis, dermatitis venenata, and mycosis fungoides. Specifically in atopic eczema the epidermis is dry, although the intercellular spaces may be accentuated. There is usually a regular acanthosis although friction, trauma and medication may superimpose a traumatic dermatitis thus causing an irregular acanthosis, edema, and often a parakeratosis. The vessels of the middle and upper layers of the cutis are thickened and dilated. There is a foci infiltration of small round cells and wandering connective tissue cells. There is a moderate amount of interstitial edema.

5. Pirquet, v. C.: Munch. med. wchnschr., 53:1495 (1906).
6. Schloss, O. M.: Amer. J. of Dis. of Children, 3:341 (Feb. 1912).
7. Simon, F. A.: Journal of Allergy, 18:186 (March 1947).
8. Sachs, Wilbert, Miller, Charles S., and Gray, Margaret B.: Arch. Dermat. and Syph., 54:397 (Oct. 1946).

The papillary bodies are not exaggerated. In urticaria the process is so transitory that the epidermis is unaffected. There is dilatation of the deeper vessels with sparse round cells infiltration and considerable interstitial edema.

The erythematous, papular, vesicular change produced in the skin by the patch test has its origin on the most superficial vessels; the urticarial change of the scratch and intracutaneous test arises from irritation of the deeper vessels. The former takes place slowly from relatively mild irritation, the latter quickly and more violent. Hill [9] finds no difference between them as both are irritation of the small blood vessels. Sulzberger [10] states that the process occurring in atopic eczema, that is the irritation of the papillary vessels, may be looked upon as subclinical whealing. Many observers, notably Peck and Solomon,[11] and Albert and Walzer [12] have obtained vesicular response to patch tests in atopic eczema. Possibly the distinction between atopic and contact dermatitis is not too sharp. Cooke [13] believes that the wheal-reacting type of reaction as produced in atopic eczema by intradermal and scratch tests has no clinical or diagnostic significance. His contention is that skin sensitizing antibodies in eczematous infants are portents of things to come in the way of future asthma and hay fever. They may not indicate any existing clinical sensitivity and never an eczematous one. Hence his objection to the word "atopic", as a wheal-reaction has no significance in atopic eczema. He never observed an exacerbation of eczema from ingestion of that foodstuff which gave an immediate wheal reaction. His conclusion was that neurodermatitis and infantile eczema (the so-called atopic eczema), is only an allergy as contact-type eczematous dermatitis is also an allergy—both are immunologically identical. Patch testing and clinical tests are the only means to make an etiologic diagnosis for contact dermatitis; and so it is for atopic dermatitis. Naturally such a statement brought up the question of the importance of patch testing in atopic eczema.

Blumenthal and Jaffe [14] (1933) did not obtain single positive patch test reaction in 40 cases of atopic eczema, tested with twenty-nine different eczematous producing substances. Sulzberger [15] also found that patients with atopic eczema almost always give a negative result from patch tests. Hill [9] is of the opinion that the allergen, (whether food or environmental) may give both a scratch and patch tests, and by ingestion, or by contact, may sometimes produce urticaria by rapid and violent irritation of deeper vessels of the skin as manifested by whealing, because the needle goes deeply into the corium in intracutaneous testing and sometimes an eczematous reaction occurs by slow and superficial irritation. Weston [16] prefers patch testing for determining environmental allergens of etiologic significance and intradermic testing for inhalant and ingestant allergens. Walzer [4] states "All cases are not to be tested. Only severe cases and especially those with mucous involvement, as asthma, hay fever, gastro-intestinal symptoms, etc. Never do direct testing as the skin isn't a good soil for testing due to the prolonged scratching. Do only indirect testing."

CONCLUSION

To a certain extent atopic eczema is conditioned by hereditary and constitutional factors; perhaps also, faulty imbalance of the vegetative system may be a factor. This too may be hereditary.

Allergic reactivity is considered of first importance for bringing on manifest symptoms. An infant sensitized to food, readily becomes sensitized to environmental factors, causing the eczema from contact or inhalation. The older the individual the more the environmental allergens are important and less the foods.

The shock organs in atopic eczema are the small papillary vessels in certain areas of predilection. The epidermis is secondarily affected. Pruritus is the primary lesion and perhaps maculation and minute papulation. Eczematization and lichenification is given permanence by trauma-rubbing and scratching.

Opinion is divided on the manner and method of testing for sensitivity; preponderance of opinion favors patch testing for determination of environmental allergens—intracutaneous testing either direct or indirect for foods or inhalant allergens—although an allergen may produce an eczematous or an urticarial reaction according to the method of application.

9. Hill, W. H.: Allergy, 18:60 (Jan. 1947).
10. Sulzberger, M. B.: *Dermatology and Allergy*, Springfield, Illinois (1940), Charles C. Thomas Company.
11. Peck, S., and Solomon, G.: Amer. J. Dis. Child., 46:1308 (December 1933).
12. Albert, M., and Walzer, M.: J. Invest. Dermat., 3:119 (March 1940).
13. Cooke, R. A.: J. Allergy, 15:201 (April 1944).
14. Blumenthal, F., and Jaffe, K.: Ehzem and idiosynkrasie, Berlin (1933).
15. Sulzberger, M. B., and Goodman, J.: Journal of the American Medical Association, 106:1000 (1936).
16. Weston, C. G.: Personal Communications (November 1948).

63 Myrtle Avenue, Montclair
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CARDIAC NEOPLASM SIMULATING PRIMARY HEART DISEASE*

Abraham Jaffin, M.D., and Nathan Frank, M.D., Jersey City, N. J.

Cardiac neoplasm has been given scant attention in medical teaching and in the literature. This paper presents the significant clinical and laboratory findings, which may aid in establishing the diagnosis, and reviews the literature. The case presented below points out the pitfalls that await the clinician if he is not alert.

A 46 year old man was admitted to the orthopedic service of the Jersey City Medical Center on July 24, complaining of low back pain, chest pain, difficulty in breathing, anorexia, weakness and a thirty-seven pound weight loss. Previous history was not remarkable except that his father died of cancer.

Present illness dated to the previous December, at which time, he developed what he described as "grippe and pleurisy". In February, he noted pain in the region of his lumbar spine, left arm and wrist. These symptoms became progressively more disabling so that he had to stop working in May. The back pain was dull and aching in character. It increased to such severity that hospitalization was advised. Weakness, weight loss and lack of appetite increased progressively.

Physical examination on admission revealed a chronically ill man who appeared older than his stated age. Other than spasm of the lumbar muscles and abdominal distention, no significant abnormalities were noted by the orthopedic examiner. However, the next day, the pulse rate was found to be 150. On August 1, he was seen by a member of the medical department who heard a "coarse, low pitched apical murmur". The liver was enlarged. Electrocardiogram showed auricular flutter. A chest roentgenogram on August 24, was interpreted as showing an enlarged heart with marked bulging of the middle segment of the left border. The contour was felt to be that of a heart with rheumatic mitral valvular disease. Two small areas of diminished density were noted in the right 11th and 12th ribs. These were thought to represent malignant metastasis. Lungs showed marked increase of the hilar and pulmonary markings. X-ray of the lumbar spine and pelvis was read as negative except for a dense shadow in the intertrochanteric region of the right femur. Fluoroscopic examination on August 29, with the patient swallowing a thick barium mixture, showed posterior displacement of the esophagus. A film on August 29, revealed a uniform increase in density over the right lung field and a pathologic fracture of the anterior end of the 8th rib on the right side. The roentgenologist again interpreted the cardiac silhouette as showing mitral valvular pathology. The density of the right lung was thought to be a pleural effusion. A gastrointestinal series and barium enema were found negative. A chest film on September 4, showed little change. An intravenous pyelogram was negative.



Figure 1

Urine throughout the stay was normal. Red cells numbered 4,000,000, leucocytes were 18,000. Hemoglobin was 14.5 Grams. Wassermann test was negative. Blood sugar was 212 and non-protein nitrogen was 34.8. Glucose tolerance curve test was negative.

The patient was seen by several members of the medical staff, most of whom heard systolic and diastolic apical murmurs consistent with the diagnosis of mitral heart disease. The patient's course was progressively down hill. An electrocardiogram shortly before death showed a return to regular sinus rhythm. Toward the end he developed marked dyspnea and his lungs became filled with moisture. He died on September 28.

POST MORTEM FINDINGS

Autopsy was performed eleven hours after death by Dr. A. M. Gnassi. The body was that of an emaciated white man who appeared his stated age. The face and neck were cyanotic. There was no evidence of edema, superficial lymphadenopathy or discharges from the cranial orifices.

The peritoneal cavity contained 500 cubic centimeters of serofibrinous fluid. The organs were in normal positions and relations. The height of the diaphragm on the left was at the fifth interspace and on the right at the fifth rib. The mesenteric lymph nodes were not enlarged.

The left pleural cavity presented numerous nodules varying in size from 0.5 to 1 centimeter in size. The right pleural cavity also presented a few nodules as noted in the left. The right lung was compressed and there was a displacement of the heart to the right. There was a hard nodular mediastinal mass continuous with the heart and great vessels. Lymph nodes were not enlarged.

* From the medical service of Dr. Abraham E. Jaffin, Jersey City Medical Center.

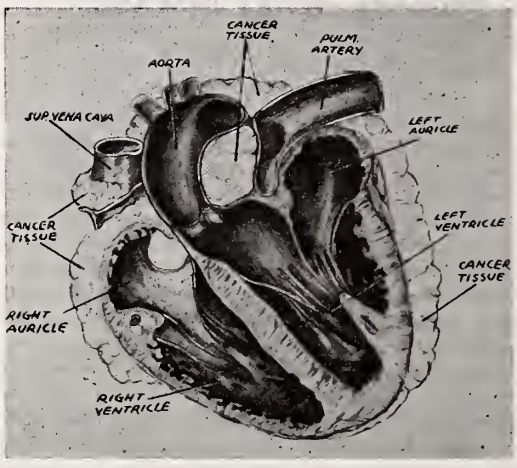


Figure 2

The pericardial cavity contained 200 cubic centimeters of clear fluid. The surfaces were glistening. There was a hard mass with smooth surface replacing the space between the pericardium and the epicardium on the anterior surface. This mass measured 1.5 centimeters.

The heart weighed 400 grams. The circumferences of the valvular orifices measured in centimeters as follows: tricuspid 11.5, pulmonic 8, aortic 9 and mitral 9.5. Post mortem clots were present. The wall of the left ventricle measured 1.4 centimeters in thickness and that of the right 0.5. The coronary vessels were patent. The epicardium was studded with numerous nodular masses. The myocardium was apparently free of infiltration by tumor. The thoracic aorta was surrounded by a large firm white mass.

The lungs together weighed 1150 grams. The right lung was slightly smaller than normal. The hilus contained a large firm white mass. The left lung was of average size. On section, there was a hard white tissue surrounding the bronchi of the right lung and many small hard white areas scattered throughout both lungs. The bronchus was compressed and completely infiltrated by a hard white mass which was continuous with the mediastinal mass. The pulmonary vessels were patent.

Throughout the esophagus, stomach, small and large intestines, the mucosae were intact and the muscularis well preserved. The omentum was studded with round yellowish masses of increased consistency.

Pancreas and spleen were normal. The liver weighed 3150 grams. The liver was completely infiltrated with large hard white nodules. There was a very large nodule in the left lobe of the liver which was broken down in the center, exuding a purulent appearing material.

Kidneys, adrenals, bladder and genitalia were normal.

Microscopic description: Left ventricle section showed the epicardium diffusely infiltrated by closely related anaplastic cells which had scanty cyto-

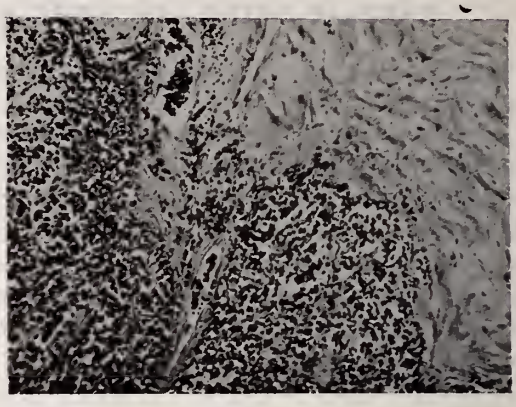


Figure 3

plasm and oval nuclei, which varied in size and shape and were frequently in mitosis. Within the interstitial tissue of the myocardium were small foci of similar tumor cells. The myocardial fibers were of average size with well preserved cross striations.

Sections of the right main bronchus showed absence of respiratory epithelium which was replaced by a broad densely cellular zone of small anaplastic cells which infiltrated the entire submucosa and extended beyond the bronchial cartilage into the peribronchial connective tissue and lymph nodes. These cells had oval nuclei with fine chromatin; they varied markedly in size and shape with hyperchromatism and many mitoses. The cytoplasm was extremely scanty. Sections of the lungs showed similar tumor cells within the submucosa and the surrounding tissue of all of the medium sized bronchi. Within the parenchyma were many poorly circumscribed areas of similar anaplastic cells. The tracheo bronchial lymph nodes were diffusely infiltrated by anaplastic tumor cells.

The liver parenchyma was compressed by many large poorly circumscribed areas of anaplastic oval cells which had very scanty cytoplasm. Within the parenchyma were scattered midzonal areas in which the liver cells had many large clear vacuoles and small eccentric nuclei. The sinusolds showed many of the Kupfer cells to be filled with blood pigment and red blood cells.

Pancreas, spleen, kidneys, adrenals and prostate were histologically normal.

DIAGNOSES

1. Anaplastic carcinoma of the right main bronchus with metastasis to the lungs, right pleura, mediastinal lymph nodes, heart, pericardium and liver.
2. Fatty infiltration of the liver.
3. Hemosiderosis of the spleen and liver.
4. Chronic passive congestion of the lungs, liver and spleen.
5. Ascites.
6. Hydropericardium.

Tumors of the heart and pericardium are among the rare causes of heart disease. Primary tumors occur about once in every two thousand cases that come to necropsy. Seventy-five per cent of such tumors are benign. Metastatic malignancy has been discovered in one hundred and eighteen out of eleven thousand consecutive cases autopsied at the Cleveland City Hospital,[1] from 1919 to 1939. This is 1.1 per cent. These metastatic malignancies involving the heart and pericardium made up 11 per cent of the cases of malignant diseases in the whole series, and were especially common with carcinoma of the bronchus and the breast. Lymburner,[2] in a review of 8850 autopsies at the Mayo Clinic, found 52 in which the heart was the secondary site of malignancy. Pollia and Gogol,[3] in a study of 1450 malignant tumors found only 29 secondardy tumors of the heart. Yater,[4] in a very intensive survey found eleven cases with pericardial involvement. Of the primary tumors, there have been reported in the order named, most commonly, myxoma, sarcoma, and rhabdomyoma. There is often carcinoma, fibroma, lipoma, angioma, cystoma, papilloma and teratoma. About fifteen cases of primary sarcoma of the pericardium have been reported. Any heart chamber may be the site of neoplasm but the right chambers are more often involved then the left, because the tumor is so often spread by the blood stream. The last comprehensive report on this subject was by Lisa, Hirschorn and Hart.[5]

It is difficult to diagnose neoplasms of the heart but certainly one reason for this infrequent clinical diagnosis, is lack of awareness of the condition. No one can become too astute, because of the relative infrequency with which one encounters this entity. However, it certainly should be included in the list of differential diagnoses, when one finds a primary malignancy elsewhere in the body, followed or accompanied by sudden cardiac manifestations. It should also be considered in (1) cardiac dysfunction of obscure origin, (2) intractible myocardial insufficiency, (3) serosanguinous pericardial effusion, (4) venous thromboses, (5) murmurs that change with the shifting of the patient into different positions, (6) abnormal or bizarre roentgen cardiac silhouette, (7) cardiac failure and arrythmia in the presence of a known primary growth. Roesler in 1924 made the first correct clinical diagnosis. Fishberg [6] was the first to report it in the American literature in 1930. Since then there have been several other correct clinical diagnoses. To Popp [7] (1932) is due the credit for the first correct diagnosis of a primary tumor of the heart. Barnes, Beaver and Snell [8] were the first in this country to duplicate this feat.

Of the primary tumors, the most common is the relatively benign myxoma. This is usually situated in one of the atrial cavities. In the case reported by Bennett, Konigsberg and Dublin,[9] the tumor produced an abnormal cardiac silhouette such as is found in rheumatic heart with mitral stenosis. Field, Donovan and Suna [10] reported a case that presented the classical signs of mitral stenosis except for the variability of these manifestations with changes in the posture of the patient. The growth in this case was a myxoma of the left auricle that extended downward and partly occluded the mitral orifice. Hoffman observed a case with a similar lesion that mimicked the course of subacute bacterial endocarditis. The recognition of these lesions is not easy, but with the aid of angiocardiography the tumor may be visualized while the patient is still alive, if the possibility of its presence is given consideration. Valvular heart disease is frequently misdiagnosed in metastatic neoplastic disease of the heart. Such was the case in the patient presented in this report. Wainwright [11] had two cases that imitated rheumatic heart disease. In one, the primary growth was in the lung. The tumor extended along the pulmonary vein into the left heart and exhibited the signs and

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murmurs of mitral stenosis. The second was a uterine tumor that proliferated along the inferior vena cava into the right heart. The latter manifested signs of mitral insufficiency.

Barnes, Beaver and Snell [8] studied the electrocardiographic changes in cardiac neoplastic disease. They observed that abnormal patterns are present if the ventricular masculature or the conduction system is involved by the process. Because of the more frequent invasion of the right ventricle, right bundle branch block exceeds left bundle branch block in frequency. Siegel and Young [12] warned of the too frequent diagnosis of coronary occlusive disease in the presence of a primary malignancy. The development of atypical patterns should make one consider direct extension rather than vascular occlusion.

Pericarditis, with rapidly recurring effusions of obscure origin, should be considered as possibly neoplastic in origin. This is always true, if paracentesis consistently reveals bloody fluid. Shelburne [13] reported three cases in which the diagnosis was made antemortem, simply on the basis of this finding. Fischer [14] recently reported a case of bronchogenic carcinoma with neoplastic involvement of the pericardium that produced the syndrome of constrictive pericarditis.

The main points of interest that this patient presented were namely, (1) auscultatory findings of mitral valvular insufficiency and stenosis. Yet at autopsy, the size of the valve orifices were quite within normal limits, and the valves themselves appeared normal. (2) A roentgen silhouette such as is usually found in mitral valvular disease. Here again, there was no enlargement of the pulmonary conus at necropsy. (3) Electrocadiographic evidence of auricular flutter. This arrythmia is found in many types of heart disease, but also, frequently in rheumatic heart disease. One can explain the murmurs on the basis of disturbance of the heart hemodynamics during life. This is understandable when one notes the extent of neoplastic infiltration as is shown above.

The authors wish to express their appreciation to Mr. Felix Traugott for the drawing and photographs.

41 Emory Street
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18th CENTURY MEDICINE IN NEW JERSEY

From the minutes of the meeting of November 4, 1766: "It was reported that the principal clamor of the inhabitants of Elizabethtown was owing to some improper expressions having escaped from some member of this Society, in regard to visiting fees, and that this has brought the society into disrepute with many persons who esteem the table of fees to be an unjust scheme invented by the Society to bring the inhabitants to terms. It was therefore moved that every member of this Society now be at liberty to charge as each of them think proper till the next meeting, by which time it was hoped, that the publication of the laws of the Society may have a tendency to remove the ill-grounded suspicions of the populace." (Page 15 of the 1766 *Transactions of The Medical Society of New Jersey).*

ONE HUNDRED YEARS AGO

From the report of the standing committee read at the 1849 annual meeting, The Medical Society of New Jersey: "In some portions of our state, erysipelas accompanied with typhus symptoms has prevailed. In by-gone days, erysipelas was universally accompanied with synochal* symptoms demanding active depletory remedies. So uncommon is the association of erysipelas and typhus symptoms today as to cause many who have been interrogated to state their ignorance except from those recently introduced to this unpleasant stranger. Your chairman will observe that in nearly half a century of extensive country practice he cannot call to mind a single case of erysipelas which was decidedly typhus in nature demanding corroberants † and antiseptics." (From page 432 of 1849 *Transactions.)*

* Synochal means "with continued fever".
† Corroberants are invigorating drugs, presumably tonics.

EXCEPTIONALLY LARGE TWINS

A. D. SUMMERS, M.D.,* Princeton, N. J.

Twins of a combined weight exceeding 15 pounds are relatively rare. Mathieu [1] made a survey of deliveries in 1939 and found only three cases in which the combined weight was more than 7000 Grams. He reported seventeen additional published cases. The highest combined weight in the series was 9180 Grams. The heaviest infant was 4670 Grams, and the smallest one was 3400. Since Mathieu's article, four more reports have appeared; DeLee and Greenhill [2] record twins with a combined weight of 7710 Grams; Croft [3] a combined weight of 7847; Wolf [4] a combined weight of 8250; and Park [5] in 1944 reported from England, male binovular twins with a combined weight of 8705 (19 pounds, 2 ounces).

Report of Case: A married woman, white, gravida-5, para-4, age 35 years, was referred to me by Dr. Guy K. Dean of Plainsboro. Her last menstrual period was March 6, 1948. Four previous babies had been born at home. None of the labors had been complicated and all the babies were large. The last and largest weighed 12 pounds (patient's statement). All survived. The patient's blood was group O, Rh Factor positive, serology negative.

The ante-natal course was uncomplicated except for sudden increase in weight between the 24th and 26th weeks. Part of this was due to edema of the legs, thighs and abdominal wall. This condition improved with a salt-poor diet, limited fluids and ammonium chloride by mouth. From the 26th to the 28th weeks, she lost four pounds and felt much better. At 12 weeks gestation the patient weighed 170 pounds and at term she weighed 189. There was a mild cystitis, without fever but with many pus cells in the urine, at 30 weeks. This responded promptly to sulfonamide therapy.

The patient went into spontaneous labor at 10 p. m. on December 29. She was admitted to the hospital shortly after midnight on December 30. She was having good contractions at 5-minute intervals, the abdomen was enormous and only one fetal heart could be heard; in the left lower quadrant. Rectal examination revealed a soft cervix, well effaced and two fingers dilated. The head was dipping into the pelvic inlet in left anterior occiput position and the membranes were intact. Progress was normal with descent of the head and full dilatation at 7 a. m. No episiotomy was done because of the relaxed perineum from the four previous deliveries. The first baby was born spontaneously at 7:24 a. m. The second twin presented as a cephalic also. The second bag of waters was ruptured with a probe, and at 7:45 a. m. the baby was born in left anterior occiput position.

The third stage was uneventful. Ergotrate was given intravenously after the birth of the second twin and the placenta separated and was expressed in three minutes. Blood loss was minimal. The placenta was exceptionally large. It measured ten inches (25 centimeters) in diameter. The two cords were centrally located about four inches (10 centimeters) apart. Amniotic fluid was not excessive in amount.

The patient had no post-partum difficulties and was discharged on the seventh post-partum day.

The baby girls were normal in every respect. The first baby weighed 8 pounds 12½ ounces (3980 Grams); the second weighed 8 pounds 4½ ounces (3745 Grams). This makes a combined weight of more than 17 pounds (7725 Grams).

SUMMARY

A case is presented in which a white woman delivered, spontaneously, twin girls with a combined weight of 17 pounds 1 ounce. A brief summary of other reported cases of large twins is given. It is noteworthy that this patient's total weight gain was only slightly more than the combined weight of the two babies. The patient went 17 days beyond her expected date of delivery which is uncommon in multiple pregnancies.

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HYDATIDIFORM MOLE OF THE BROAD LIGAMENT *

REPORT OF A CASE

JACOB L. FLAX, M.D., and WILLIAM I. WEISS, M.D., Newark, N. J.

In a review of the literature on chorionepithelioma of the fallopian tube in 1938, Williams [1] cited 41 cases and added one of his own. Since then, fifteen additional reports [2] of chorionepithelioma of the fallopian tube have appeared, making a total of 57 cases to date.

Hydatidiform mole is more common than chorionepithelioma and, according to Novak,[3] precedes about 50 per cent of the cases of chorionepithelioma. In spite of this, the literature contains far fewer reports of hydatidiform mole of the fallopian tube than of chorionepithelioma of that organ. Phaneuf [4] gives the incidence of hydatidiform mole as 3 per cent of all tubal pregnancies. However, he gives no figures. In a review prepared in 1941, Pettit [5] mentions seven cases of hydatidiform mole and adds a case of her own. Since 1941 three additional reports [6] of tubal mole have appeared in the literature.

To explain the origin of tubal or peritoneal sites of chorionepithelioma or hydatidiform mole, the following possibilities have been proposed:[1]

1. Primary development from a tubal or intra-abdominal pregnancy.
2. Ectopic growth due to the passage of villi into the tube during a previous uterine pregnancy with subsequent delivery or interruption of the uterine pregnancy.
3. Metastatic involvement from a primary tumor in the uterus following pregnancy.
4. Malignant transformation of the trophoblast in ovarian parthenogenesis. This is common to the teratoma and chorionepithelioma and may account for most cases arising in ovaries and testes.[7]

Lazarus and Schifrin [8] reported a case of multiple benign implants of chorionic villi on the peritoneum. When an ectopic chorionepithelioma or hydatidiform mole is not present within the fallopian tube or ovary and no evidence of a primary growth is present in the uterus (as in the case of Lazarus and Schifrin) one can only speculate on the origin of the tumor. We here present another such case in which a hydatidiform mole, (present on the broad ligament) could not definitely be traced to its origin. In view of its location, it probably arose from the fallopian tube.

A 45 year old white female was admitted with a history of lower abdominal pains of four days duration. Pains began suddenly, were not localized and did not radiate. At onset there was no vomiting, but the pains persisted and gradually increased in intensity. On the second day of illness she began to vomit and was not able to retain anything by mouth. This persisted until hospitalization. There had been no bowel movements from onset of symptoms until admission to the hospital.

There was no history of preceding illness. Menses had been regular. The last menstrual period occurred two weeks prior to admission and there had been no period of amenorrhea. The patient had had four known pregnancies. Two resulted in normal deliveries, while two terminated in miscarriages. Her last pregnancy occurred twelve years prior to her present illness. There was no history of vaginal bleeding or leukorrhea.

On admission she was dehydrated and in acute distress. Temperature was 99.4, pulse 86 and respirations 22. Examination of the head, neck, heart and lungs was negative. The abdomen was moderately distended and there was marked tenderness over the entire lower portion, with spasm of the lower abdominal wall. The upper abdomen was soft. no organs or masses were palpable. On vaginal examination a sensation of fullness was felt in the pelvis. The uterus and adnexae could not be mapped out because of the spasticity of the lower abdominal wall. The cervix was non-tender and firm. The external os was not patulous. The rec-

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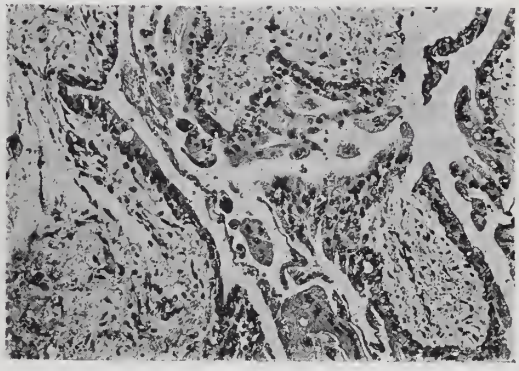
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tum was empty, and rectal examination was negative. Urine was positive for sugar, acetone and albumen. White blood count was 5600. Of these, 74 per cent were polymorphonuclear, 1 per cent were eosinophiles, 17 per cent were lymphocytes. She was acidotic on admission and needed intravenous fluids. Next day, vomiting had ceased and she seemed clinically improved. She was retaining fluids, and had had a normal bowel movement. Temperature had dropped to normal, but abdominal pain and tenderness persisted. An exploratory laparotomy was done on the fourth day.

A large quantity of free blood and a mass of clots were evacuated from the peritoneal cavity. We found a large hemorrhagic mass five centimeters in diameter involving the posterior surface of the right broad ligament adjacent to the right cornu of the uterus. Both ovaries, the left tube and the uterus were normal. The right fallopian tube could not be visualized. The mass was resected and the abdomen closed. Five hundred cubic centimeters of blood was given during the operation.

The specimen consisted of grey hemorrhagic spongy tissue and blood clot. Within the grey hemorrhagic tissue were many translucent cysts ranging from 0.1 to 0.3 centimeters in diameter. Microscopic examination revealed a hydatidiform mole with areas of trophoblastic proliferation. The illustration shows a section magnified 280 times. It reveals the enlarged edematous chorionic villi with trophoblastic proliferation.

The patient made an uneventful recovery and was discharged from the hospital on the ninth postoperative day. A Friedman test three weeks postoperative was negative. Four months later the patient was asymptomatic and another Friedman test was negative.



Hydatidiform mole with enlarged edematous chorionic villi with trophoblastic proliferation (x 280).

The more likely sites of origin of this hydatidiform mole to be considered are:

1. A primary tubal or intra-abdominal pregnancy. Although the normal menstrual history and denial of recent pregnancy are against this possibility, they are open to doubt in this patient whose story was not considered entirely reliable. A recent pregnancy is not only possible but highly probable.

2. Ectopic growth due to passage of chorionic villi into or through the fallopian tube during a previous pregnancy. This again requires the assumption of the existence of a recent pregnancy.

3. Metastatic involvement of the broad ligament from a primary chorionepithelioma of the uterus. Although the tumor showed trophoblastic proliferation, the subsequent benign course, the persistent negative Friedman tests and the finding of a normal uterus at operation make this extremely remote.

Since the uterus, both ovaries and the left fallopian tube were normal at the operation, and the right fallopian tube, though not visualized, was felt to be involved in the mass, we believe that this hydratidiform mole arose from a degenerating tubal pregnancy.

ONE HUNDRED YEARS AGO

FROM THE 1849 REPORT OF THE STANDING COMMITTEE: "As evidence of there being great danger of communicating to parturient females the contagious virus of erysipelas, it may be stated that while recently visiting a patient with this disease, the writer was called to wait on a female in labor. Under the apprehension that there might be some danger of communicating the disease, examinations *per vaginum* were as few as circumstances would justify. But the hands were necessarily brought into contact with the mucous coat of the vagina. And though my hands had been thoroughly washed, the patient barely escaped with her life from an attack of puerperal fever. The infant at the age of two weeks was seized with a severe attack of erysipelas and died in a state of coma." (Page 454 of 1849 *Transactions of The Medical Society of New Jersey.)*

VESICAL NECK OBSTRUCTION IN THE FEMALE *

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Although inflammatory diseases of the female posterior urethra are frequent, actual pathologic alterations of the vesical neck provocative of urinary obstruction are rare. Such a syndrome simulates "median bar" in the male. Caulk [1] was the first to call attention to this. Although subsequent investigations (notably those by Young [2] and Folsom [3]) confirmed Caulk's original impressions, the number of cases reported has been surprisingly small. Despite the apparent rarity of the disease, the doctor should know of its existence, since errors in diagnosis may lead to blunders in treatment. We have had occasion during the past two years to observe six cases of bladder neck obstruction in the female. Three of these had symptoms of such severity as to necessitate surgical intervention.

What is the pathogenesis of this type of urethral barrier? Johnson [4] makes the interesting suggestion that the whole homologue of the prostate is actually present in the female urethra. His thesis is that prostatic glands appear in the female urethra but they never attain true development unless there is hyperplasia of the adrenal cortex. Nesbit [5] believes that these lesions in the female appear similar to median bar in the male, both anatomically and pathologically, and seem to be the result of chronic infection. During the last decade, Renner [6] and Folsom [3] independently introduced the concept of a "female prostate" to explain the hyperplastic changes about the female vesical neck. They believed that there are periurethral glands at this location which enlarge, become cystic, and contain concretions resembling those of the prostate. When inflamed, the glands act as foci of infection. Later studies by MacKenzie and Beck,[7] and concurrently by Cabot and Shoemaker [8] showed similar findings but they differed in interpretation of their results. These investigators asserted that the cystic acini, filled with colloid concretions, were really part of the crypts of the mucosa and were actually resultant of degenerative change associated with urethritis cystica. In a comprehensive survey of the entire subject in 1940, Young [2] emphasized the possibility of prostatic tissue in the female urethra as a cause of obstruction, although chronic inflammation was held responsible in most cases. As a result of an elaborate embryologic and pathologic study, Hyams [9] concluded that the most constant pathologic finding in the female urethra is cystic degeneration; and in isolated cases, periurethral tubules, a "female prostate", may be found.

The etiologic development is nevertheless still the subject of clinical conjecture. Ritter [10] suggests a neurogenic factor productive of spasm and hypertrophy of the sphincter, analagous to the fibrotic bar of cord bladder. There is a preponderance of evidence, however, to support the role of chronic inflammation and infection in the formation of bladder neck fibrosis with enough resultant contracture to cause obstruction.

The pathophysiology of the symptomatology in the syndrome of vesical neck obstruction in the female is dependent upon a number of factors which may operate individually or in combination.

1. With contracture of the neck, the musculature of the bladder is called upon to exert an increased effort in evacuating its contents, resulting in muscle hypertrophy and trabeculation. The bladder becomes atonic and ultimately incapable of expelling its entire volume.

2. The consequent increase in intravesical pressure necessitated by micturition may establish

* From the Urology service of the Passaic (N. J.) General Hospital.

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herniations with cellule and diverticulum formation. With the incapacity for total evacuation, residual urine develops. The bladder may become so flaccid as to produce dribbling and urine loss by overflow.

3. Residual urine invariably implies stasis and infection. As the back pressure and infection ascend, hydroureter, hydronephrosis, pyonephrosis, and perinephritis are possible complicating features.

4. Earliest symptoms are attributable to the irritating effects of the vesical neck changes which provoke dysuria, frequency, urgency, and hematuria. As the disturbance extends into the bladder, ureters, and kidneys, the clinical picture is colored by pyuria, fever, chills and evidence of a generalized toxic state.

Examination of resected material reveals a fairly constant pattern of tissue alteration in these cases of urinary obstruction. Invariably the sections of the extirpated specimens disclose dense fibrosis, round cell infiltration, and epithelial hyperplasia. Occasionally muscle hypertrophy is present and, in rare cases, glandular tissue corresponding to the prostate picture has been demonstrated. Young [2] states that the inflammatory process involves not only the mucosa and submucosa of the urethra adjacent to the vesical orifice, but also the trigone. In a pathological review of all the tissue removed in his cases, Caulk [11] found dense connective tissue and smooth muscle with sclerosis most frequently and hyperplasia occasionally. Reports by Thompson [12] and Folsom [3] have been corroborative.

DIAGNOSIS

Diagnosis of bladder neck obstruction in the female is generally technically incomplex, and is dependent mainly upon proper cystoscopic and cystographic interpretation. It is important to exclude from diagnostic consideration other unrelated causes of vesical orifice occlusion. These include congenital valves, neoplasm, stricture, granuloma, urethral calculus, and polyps, as well as extrinsic conditions which may cause pressure in the region of the bladder neck in women. The cystoscopic picture simulates to an amazing degree the instrumental appearance of obstructive change in the male. The mucosa of the urethra and adjacent portion of the trigone are inflamed, often edematous or even papillomatous. There is usually a precipitous fall of the posterior bladder wall and an associated hypertrophy of the interureteric ridge. The bladder may show coarse trabeculations with cellule formation, diverticula, and varying degrees of inflammation. The most graphic demonstration of these singular lesions may best be obtained with the McCarthy "foroblique vision endoscope". The deep deflection necessary to introduce the Brown Buerger cystoscope through the cystourethral junction is almost pathognomonic, however. Caulk [11] and Folsom [3] have described lobulation at the vesical aperature cystoscopically similar to prostatic lobes. Nesbit [5] reports median bar formation and Baird [13] refers to a "harmless appearing collarette obstruction at the bladder neck which may be missed unless specifically looked for".

Cystourethrography very often demonstrates elevation at the urethrovesical communication and while a desirable diagnostic adjunct, cystourethrography is by no means essential.

A cystogram will reveal trabeculation, diverticula and ureteral reflux. Radiographic exhibit of the upper urinary tract should be regarded as a requisite in very investigation of this problem, and early pyelography is to be urged for proper clinical evaluation.

TREATMENT

The therapeutic approach to this uncommon problem follows certain well-defined directions. Conservatism is the initial method of choice. Early measures include dilatation of the urethra with sounds and maintaining the cylindrical patency of the urethral contour for months; the use of warm sitz baths and chemotherapy; light fulguration of granulomatous areas; and application of mild corrosive agents such as silver nitrate. If such conservative regime restores to normal the patient's urinary function, further treatment is unnecessary. According to Everett,[14] who condemns all resectoscopic procedures in the female urethra, such a therapeutic course will answer every problem of vesical neck obstruction. This singular point of view, however, is rejected by most urologists

11. Caulk, John R., and Patton, R.: Journal of Urology, 35:504 (1935).
12. Thompson, G. J.: Journal of Urology, 41:349 (1949).
13. Baird, S. S., and Spence, H. M.: Urologic and Cutaneous Review, 52:658 (1948).
14. Everett, Houston S.: Urologic and Cutaneous Review, 52:121 (1948).

who insist that in specific instances surgical intervention is mandatory. Baird [13] has indicated that while injudicious revision is perilous, rational therapy in answer to several rigid indications necessitates operative removal of obstructive tissue. The prerequisite criteria for surgical therapy which govern our judgment are:

1. The history and physical examination must ascertain the presence of urinary obstruction. Hesitancy, retention, and dysuria with narrowing of the stream are the most common complaints as well as diuria, nocturia, and incomplete emptying. Evidence of residual urine must exist.
2. Urologic investigation must secure the diagnosis of obstructive uropathy with specific objective findings such as trabeculation and tissue intrusion into the urethra.
3. Conservative measures must have proved ineffective after a satisfactory trial.

When the standards set forth above are met and the patient is still beset by her original difficulties transurethral revision is necessary. The surgical procedure, itself, is one of technical difficulty and the dangers of incontinence and urethrovaginal fistula have been stressed by Everett.[14] The operation must not be undertaken lightly and its performance demands skill with the resectoscope as well as complete familiarity with the anatomy involved.

While it is true that landmarks in the female are less definite than in the male, judicious revision will insure the integrity of the circular fibres through which one may not safely cut and thereby protect the competency of the sphincter mechanism.

The technic we employ is designed (a) to overcome obstruction at the vesical orifice and (b) make available to us every safeguard. Primarily, the method is based on shallow furrows alternately spaced with areas of intervening tissue. The initial sweep of the resectoscope cutting electrode is made at nine o'clock and revision is carried out systematically to the right along the median ridge of tissue to reach three o'clock on the opposite side. This semicircular operative zone encompasses every aspect of bladder neck obstruction in the female. The depth of penetration is merely the calibre of the resectoscopic loop which is drawn through only half its usual excursion. Hemostasis is easily effected by focal coagulation. The technic, therefore, is very different from the method employed in transurethral prostatectomy where complete widespread excavation is sought.

In three of our cases during the past two years, conservative therapy proved effective not only in alleviating subjective distress but also in terms of discrete objective findings. One patient was first seen in acute urinary retention while the other two had symptoms of progressive nature. These women, varying in age from 40 to 65 all had significant residual urine and all, to date, have responded to periodic dilatations of the urethra.

Three patients, however, did not show good results with conservative treatment and surgical revision of the vesical outlet was required. Their case histories are abstracted below:

CASE ONE

A 56 year old, white female, was admitted to the Passaic General Hospital complaining of dysuria for the preceding two years. Her complaints revolved about frequency and marked burning on urination. Symptoms had become progressively worse during the past four months, and an extreme amount of straining was necessary for expulsion of urine. On occasion she felt that manual pressure over the bladder was necessary to help evacuate the bladder. She complained of nocturia (4 to 5 times) and diurnal frequency of every hour. Several times the patient complained of dribbling. After voiding, she still had a sensation of retained urine. Residual urine was measured at 40 ounces.

Urinalysis showed an amber, turbid urine, with a pH of 7. Specific gravity was 1.022; albumin was 3 plus. There were numerous white and red cells and a large number of epithelial cells on microscopic examination. Urine culture showed a mixed infection with B. coli and alpha streptococcus.

Hemoglobin was 14 grams; red cells numbered 4,100,000; a white count was 13,000, with normal differential distribution. Blood chemistry indicated a glucose of 90, creatinine of 0.65, urea nitrogen of 10, and urea of 25 milligrams per cent.

Cystoscopy showed a markedly inflamed bladder with no evidence of tumor or stone, but with marked injection of the entire mucosa with a wide distribution of bullous edema. There was a marked elevation of the floor of the internal sphincter, obviously productive of the obstructive changes complained of by the patient. A transurethral resection was carried out according to the method described above. A catheter was inserted which was removed on the second postoperative day.

Following her discharge, patient had complete relief of symptoms and the residual urine determination was less than two ounces.

The resected tissue consisted of fibromyomatous tissue, which was edematous and contained an acute inflammatory infiltration of round cells.

CASE TWO

A 63 year old white female was admitted with the chief complaint of painful urination. Symptoms developed one year prior to admission when she noted it was becoming increasingly difficult to void and that she was not completely emptying the bladder. She was troubled with a diuria of every 30 to 40 minutes and a nocturia, which at times awoke her as frequently as every 30 minutes. She had marked burning on urination, but had passed no blood or stones. Residual urine was found to be 70 to 80 ounces.

Cystoscopic examination revealed a collarette type of obstruction at the bladder neck with evidence of an acute inflammatory process in the bladder.

Intravenous pyelogram was entirely negative. Blood chemistry studies were within normal limits.

A transurethral revision of the bladder neck was carried out. Examination of this specimen revealed chronic inflammatory and granulating tissue with fibromyomatous strands.

On the third postoperative day, the catheter was removed and the patient was voiding well without distress. Residual determination at this time indicated a volume of less than 45 cubic centimeters. Patient has gotten along well to the present time (three years) with no recurrences of symptoms.

CASE THREE

A 63 year old, white female, was admitted because of frequency of urination, dysuria, and tenesmus. This was of three years' duration and was characterized by progressive increase in severity of symptoms. The patient also complained of nocturia and a constant feeling of incomplete micturition. On three occasions acute urinary retention developed, the last episode occurring just prior to hospitalization. During her illness, conservative therapeutic measures had been found ineffectual providing only transient relief. Residual urine determination was estimated at 30 ounces.

Urinalysis was negative for sugar and glucose, and microscopic examination revealed only two or three white cells per high powered field. Blood chemistry was within normal limits. Excretory urography displayed no abnormalities.

Cystoscopy revealed a violent cystitis. There was demonstrated hypertrophy of the interureteric ridge. Lobar intrusions were seen at both lateral aspects of the internal sphincter. The floor of the sphincter was elevated and two cystic protuberances were visualized on the floor of the vesical neck.

A transurethral operation was then performed. The catheter was removed on the third postoperative day. Pathologic examination revealed fibromuscular tissue from the vesical orifice with evidence of inflammatory reaction.

Postoperatively the patient made a good recovery with complete amelioration of obstructive symptoms. On examination one year later, there was no residual urine but the patient complained of slight incontinence, referable possibly to too deep a penetration surgically.

SUMMARY

1. Urinary obstruction of varying degree, in the female may often be due to pathologic alterations at the vesical orifice. In most instances these changes are the result of chronic inflammation and infection with resultant fibrosis at the bladder neck. On occasion, the obstruction may be caused by so-called "prostatic tissue" or an accumulation of periurethral tubules. Diagnosis is usually dependent upon cystoscopic or cystographic examinations.

2. Therapy is generally conservative but in the event of failure of non-surgical methods, transurethral resection is necessary. A technic of revision specific for obstruction at the female vesical neck is described. Report is made of six cases of urethral barrier in the female, of which three required surgical intervention for alleviation of obstructive symptoms.

661 Main Avenue
151 Lexington Avenue

18th CENTURY MEDICINE IN NEW JERSEY

FROM THE MINUTES OF THE MAY 5, 1767 MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY: "The Society agreed that for the advancement of youth and the honor of the art, no student be hereafter taken unless he has a competent knowledge of the Latin and some initiation in the Greek. Finally agreed that no member take an apprentice for less than four years of which three shall be spent with his master, and the other may be spent in some school of physick in Europe or America. It being necessary to fix apprentice fees, it was agreed on the sum of one hundred pounds, proclamation money, as being no more than a bare acknowledgement for board during the above term." (Pages 18-19 of the 1767 *Transactions of The Medical Society of New Jersey*).

STATE ACTIVITIES

COUNTY SOCIETY MEETING DATES
1949—1950

County	1949 Sept.	Oct.	Nov.	Dec.	1950 Jan.	Feb.	Mar.	Apr.	May	June	July
Atlantic (Fri.)	9	14	11	9	13	10	10	14	12*	..	..
Bergen (Tues.)	13	11	8	13	10	14	14	11	9*	13	..
Burlington (Thurs.)	8	13	10	8	12	9	9	13	11*	..	..
Camden (Tues.)	..	4	1	6	3	7	7	4	2*	..	..
Cape May (Tues.)	..	25	22	27	24	28	28	25	23*	..	..
Cumberland (Tues.)	..	11	..	13	..	14	..	11*	..	13	..
Essex (Thurs.)	..	13	10	8	12	9	9	13	11*	..	..
Gloucester (Thurs.)	15	20	17	15	19	16	16	20	18*	..	..
Hudson (Tues.)	..	4	1	6	3	7	7	4	2*	..	..
Hunterdon (Tues.)	..	25	..	..	24	..	..	25*	..	..	25
Mercer (Wed.)	..	12	9	14*	11	8	8	12	10	14	..
Middlesex (Wed.)	..	19	16	21*	18	15	15	19	17	21	..
Monmouth (Wed.)	28	26	23	28	25	22	22	26*	24	28	..
Morris (Thurs.)	..	20	..	15	..	..	16	..	..	15*	..
Ocean (Wed.)	14	12	9	14	11	8	8	12	10*	14	..
Passaic (Tues.)	20	18	15	20	17	21	21	18	16*	..	..
Salem (Fri.)	16	21	18	16	20	17	17	21*	19	..	..
Somerset (Thurs.)	..	13	10	8	12	9	9	13	11	8*	..
Sussex	Sept., Dec., Feb., May—time and place designated by President										
Union (Wed.)	14	..	9	..	11	..	8	12*	10	..	..
Warren (Tues.)	..	18*	..	..	17	..	..	18	..	..	18

*Annual Meeting

BIBLIOGRAPHY FOR CHILDREN

Ever have to prescribe a book for a convalescent child? That kind of prescription writing isn't taught in medical school, but it can make a lot of difference in the household of small-fry convalescents. First-aid for the doctor in this situation is an attractive pamphlet called *Counterpane Fun* published by the New Jersey Library Association, compiled by a committee headed by Miss Edith Jennings of the Lyndhurst Public Library. The list comprises 64 titles, covering a variety of classifications from handicraft to riddles, from fiction to science. And for each title, there is indicated the appropriate age level and a compact annotation. This treasure house of tips is available at ten cents each (lower prices in quantities) from the Children's Librarian, Public Library, 120 Academy St., Trenton.

MEETINGS OF M-S PLAN TRUSTEES

Regular monthly meetings of the Trustees of the Medical-Surgical Plan of New Jersey are held at 11 a. m. on the fourth Sunday of each month at the offices of the Plan on the 12th floor of the Kinney Building, 790 Broad Street, Newark. Accordingly notice is given that the next two meetings will be on August 28 and September 25.

SUPPLEMENTARY LIST No. 5 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows. (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Berliner, Harry M., Veterans Hospital, Lyons (18)
Boogdanian, Victor, 316 George st., N. Brunsw'k(12)
Brodkin, Louis A., 365 Osborne ter., Newark (7)
Caprio, Orlando G., 765 Broadway, Ne ark (7)
Denholm, John S., 1048 Coolidge rd., Elizabeth (20)
Dolin, Joseph, 357 Woodbr'ge av.,Rt.19,N.Bruns.(12)
Fischer, Edward J., 29 Ashwood ter., W. Orange(7)
Gilmour, John R., 144 S. Harrison st., E. Orange (7)
Kaye, Bernard, 67 Center st., Freehold (13)
Keleman, Edward F., 875 Broadway, L. Branch (13)
Kluft, Jack M., 280 Hobart st., Perth Amboy (12)
Milligan, Robert S., 42 Elm st., Summit (20)
Moon, Alexander C., 126 Decatur st., Cape May (5)
Pettit, Paul H., 807 Wesley av., Ocean City (5)
Rachlin, Harry T., 396 Union av., Irvington (7)
Salmeri, Edward J., 253 River rd., Red Bank (13)
Schneider, Leo, 171 Ferry st., Newark (7)
Shields, Henry A., 52 Navesink av., Highlands (13)

ASSOCIATES

Babad, Frederick, Tilton Gen. Hosp., Fort Dix (11)
Hines, Harrison R., 710 Grand av., Asbury Park(13)
Marucci, Horace D., 298 Elmwood av., Maplewood(7)
McCarthy, Joseph F., 615 Beatty st., Trenton (11)
Samaha, Charles, 7 Sunset dr., Asbury Park (13)
Wilson, Harold M., 154 Belmont av., Newark (7)

AMERICAN COLLEGE OF CHEST PHYSICIANS

Dr. Homer H. Cherry of Paterson, was elected chairman of the Conference of college chapter officials of the American College of Chest Physicians at the annual meeting held in Atlantic City, June 2, 1949.

Dr. Irving Willner of Newark is Governor of the College for New Jersey, and Dr. Martin H. Collier, Blackwood, is the Regent of the district.

The following physicians in New Jersey received fellowship certificates at the convocation on June 4:

Dr. R. M. Anderson, Hackensack; Dr. Otto S. Baum, South Orange; Dr. Howard C. Burkhead, Long Branch; Dr. Joseph D. Cuono, Verona; Dr. Max Gross, Margate City; Dr. Ilse Hirschfeld, Glen Gardner; Dr. Charles Hyman, Atlantic City; Dr. Leonard Schneider, Bradley Beach, and Dr. Irving J. Selikoff, Paterson.

OBITUARIES

DR. RUSSELL D. GEARY

Dr. Russell D. Geary, widely known Riverside throat specialist, died on July 3 at the age of 50.

Born in Zerbe, Pa., Dr. Geary was graduated from Hahnemann Medical College in 1924, and began his practice in Riverside a year later. He was a professor of bronchoscopy at Hahnemann and served on the staffs of many Philadelphia hospitals. He was admitted to the American Board of Otolaryngology in 1939 and was a member of the Philadelphia Laryngological Society, the American Academy of Ophthalmology and Otolaryngology and the Philadelphia Medical Society. He was active in the Burlington County Medical Society and the Union League of Philadelphia.

DR. HARVEY T. HEROLD

Dr. Harvey T. Herold died at his home in Newark on June 24, after an illness of several months.

Dr. Herold was born in Newark in 1896, and was graduated from Bellevue Hospital and Medical School of New York University in 1918. He served his internship at City Hospital in Newark.

During the last few years Dr. Herold had been medical director for Western Electric Co., Kearny. During his practice he was attending surgeon at St. Barnabas Hospital and was president of the medical staff in 1943 and 1944. He was also on the staffs at Presbyterian and City Hospitals in Newark and East Orange General Hospital, serving as a gynecologist.

An obituary on Dr. Henry C. Barkhorn will appear in the September JOURNAL. *See editorial comment, page 365.*

COUNTY SOCIETY REPORTS

CUMBERLAND COUNTY

E. C. Greene, M.D., Reporter

Members of the *Cumberland County Medical Society* were guests of the Owens-Illinois Glass Company at the Onized Club Rooms in Bridgeton on Tuesday afternoon, June 14.

The business session was called to order by the president, DR. ANTHONY PINO.

Dr. A. B. Kump gave a brief but well organized report of the business meeting at the State Society Convention held in Atlantic City, mentioning policies formulated and stands taken by the state organization on current issues.

It is with pride that the local society notes the election of Dr. Kump as an alternate delegate to the American Medical Association.

The members approved an agreement with the State Board of Child Welfare concerning fees for services rendered.

The subject, *Federal Compulsory Health Insurance,* was discussed by members of the County Medical Society Speakers' Bureau, DR. GEORGE N. THOMAS and DR. KUMP.

A delicious dinner was served by the Owens-Illinois Glass Company following the meeting, at which time the members were given a cordial greeting by Herbert Hill, Director of Personnel.

HUNTERDON COUNTY

Henry A. Davidson, M.D., Reporter

May 3 was the date, the Clinton House the place for the Annual Meeting of the *Hunterdon County Medical Society.* Guest speaker was Mr. Millard Cuskaden of the Sickness Indemnity Division of the state unemployment compensation commission. Mr. Cuskaden reviewed in compact and interesting fashion the features of New Jersey's unique cash sickness benefit law, with special stress on the role of the physician in the implementation of this program. Almost every member had a question to ask, and Mr. Cuskaden gave the answers in the crisp fashion of a speaker who has a real mastery of his subject. After the members reluctantly allowed the essayist to depart, the meeting turned its attention to the business session.

The treasurer's report was read and filed. After hearing the report of the nominating committee, the Society elected the following officers: president, DR. JOHN B. FUHRMANN; president-elect, DR LLOYD HAMILTON; vice-president, DR. A. J. BAMBARA; secretary, DR. P. W. BAKER; treasurer, delegate to The Medical Society of New Jersey and to its nominating committee, DR. B. S. FUHRMANN; alternates, DR. RAYMOND GERMAIN and DR. A. M. JENKINS. After the election, DR. EDWARD MERRILL, the retiring president turned the chair over to Dr. John Fuhrmann.

On motion of DR. FRITZ, the society set $15 as the dues for the coming year. On motion of Dr. Germain, the society endorsed a proposed mobile eye health unit for the county's schools. The chair then announced the following appointments: Censors, Doctors Baker, Lane and Dantzig; Reporter, Dr. Davidson; Executive Officer, Dr. B. S. Fuhrmann; committee chairmen as follows: Dr. John Fritz (cancer committee); Dr. Henry Dantzig (committee of 21 on the national educational campaign of the A.M.A.); Dr. Lloyd Hamilton (school health); Dr. A. Jenkins (public health); Dr. B. Fuhrmann (legislation); Dr. A. J. Bambara (medical practice); and Dr. Raymond Germain (hospital).

SOMERSET COUNTY

H. E. Cook, M.D., Reporter

Under the chairmanship of DR. A. F. MANGELSDORFF, its president, the *Somerset County Medical Society* held its regular monthly meeting at the Somerset Hospital Nurse's Auditorium on May 12.

The nominating committee, consisting of Drs. E. F. Hird, Chairman, J. L. Young, and G. E. Barbour was designated.

DRS. S. H. POGOLOFF, B. ROSSI, and H. E. COOK were appointed as a committee to serve with the County Council of School Health.

DR. SAMUEL HUSTED was appointed chairman of coordinating committee in charge of the annual meeting and clam bake to be held in June.

The remainder of the meeting was devoted to a report of the various committees and a discussion of the activities of the Society over the past year.

NEW JERSEY STATE SOCIETY OF ANESTHESIOLOGISTS

At the last meeting of the New Jersey State Society of Anesthesiologists, the following officers were elected for the coming year: President—Irving R. Hayman, M.D., Paterson; Vice-President — Edward T. Lawless, M.D., Bloomfield; Secretary-Treasurer—Norman B. Kornfield, M.D., Arlington.

FIFTY YEARS AGO

FROM THE MINUTES OF THE 1899 MEETING. REPORT OF ARCHIBALD MERCER, M.D., TREASURER: "There will again be a deficit. Although the Society has $2550 in U. S. bonds paying 4½ per cent, we have been paying 5 per cent interest on a loan. I therefore recommend that the annual assessment per member be $3 instead of $2 as heretofore." (From page 37 of the 1899 *Transactions of The Medical Society of New Jersey.)*

WOMAN'S AUXILIARY

WORKSHOP CONFERENCE

Mrs. Thomas H. McGlade, Press and Publicity

The 1949 Conference Workshop of the Woman's Auxiliary to The Medical Society of New Jersey was held on Monday, June 13, at the Stacy-Trent Hotel, Trenton. Mrs. John Cottone, of Trenton, was the Workshop chairman. Individual section discussion groups conducted by the state chairmen were on the morning agenda.

Following the luncheon, Mrs. Cottone expressed her appreciation of the attendance, despite the warm weather.

Mrs. Norman Nathanson extended greetings and called a special meeting of the Executive Board for the adoption of a resolution concerning the National Health Program.

The Conference continued with a summation of the morning discussions by the state chairmen and their committeees.

Mrs. Oswald Carlander introduced her committee on legislation for 1949-1950. The committee on legislation, the first at state level, includes Mrs. Frederick G. Wandall, vice-chairman, Mrs. Robert B. Walker, Mrs. William O. Wuester, Mrs. Bernard R. Wayman, Mrs. Andrew P. Randazzo, Mrs. Ralph K. Bush and Mrs. Thomas H. McGlade. Mrs. Randazzo in summarizing the suggested tentative legislative program of the state chairman covered points one, four, nine and eleven. She stressed point nine in which a substantial prize is being offered to the Auxiliary receiving the most replies from Congressmen to letters written concerning bills advocating compulsory health insurance. Replies from the Congressmen are to be filed with the county legislative chairmen. Mrs. Wuester who has previously spoken on national health insurance shared her experiences and gave suggestions that might be helpful in speaking before women's groups. Mrs. Wayman highlighted the tea, mentioned in point three, to be held in each county auxiliary early in the fall to honor presidents and legislation chairmen of women's organizations. Mrs. Paul E. Rauschenbach, public relations chairman, discussed the Medical-Surgical Plan and methods for reaching the public with the various subcommittees coordinating their efforts to this end. She suggested opportunities be made for medical men to address lay audiences. Under public relations, sub-heading, Rural Health, Mrs. William Bray, chairman, told of 6000 "Help Yourself to Health Program Pamphlets" having been distributed, and briefly outlined the contents. She told of the county chairmen's responsibilty for the program and gave directions to be used in carrying out the program. Rural health conferences at county level were suggested. Doctors, as speakers, was another suggestion in the rural health program. Mrs. Philip Santora, nurse recruiment chairman, distributed her material on nurse scholarships.

The One-Ten-Twenty Plan was explained very thoroughly by Mrs. Asher Yaguda, chairman. Dr. Norton suggested this plan be our major plan of the year. Mrs. Yaguda outlined the Medical Society plan and compared it to the Auxiliary one. The state committee will consist of Mrs. Norman Nathanson, Mrs. Oswald Carlander, Mrs. Paul Rauschenbach and Mrs. Yaguda. All material will come from the state and the counties are to appoint their coordinating chairmen. In choosing lay members, all types of persons should be represented, particularly good public speakers.

Mr. James E. Bryan following Mrs. Yaguda in speaking of the One-Ten-Twenty Plan complimented her on her coverage of the plan. He said it was an opportunity to get all Auxiliary members working. He further stated it was a major opportunity for the Auxiliary to go one more step, in many recently taken, to have full recognition of the Medical Society. He suggested they go at it as citizens first and doctors' wives or family secondly. It offers an opportunity to strike a blow for freedom in an important and critical issue. He further advised getting county auxiliaries to pass resolutions against national health insurance and that members try to induce other organizations to which they belong to do the same. Use of the affirmative form of resolution might be preferable.

Mrs. Ernest F. Purcell, chairman, supplied instruction sheets on archives. The program chairman, Mrs. John S. Forte, asked that we do not forget to inject sociability along with the seriousness of our program in order to create friendliness. Her plans for program planning were available.

Mrs. W. L. Rumsey, chairman of Hygeia, offered subscription blanks for the magazine.

Press and publicity suggestions and a scrap book reminder were given by Mrs. Thomas McGlade.

Mrs. E. H. Dyer, organization chairman, distributed material to be used by county chairmen.

Medical history chairman, Mrs. Samuel Jessurun, asked for greater cooperation in sending in the reports.

Mrs. Nathan Karshmer, Bulletin chairman had available forms for subscriptions.

AUXILIARY REPORT

Essex County

Mrs. Stuart Zeh Hawkes, Press and Publicity

The Woman's Auxiliary to The Essex County Medical Society held its Annual Meeting and Luncheon on May 23, at Mayfair Farms, West Orange. Mrs. Robert Anderson presided and turned the office over to Mrs. Philip J. Santora, president-elect.

Dr. Joseph Echikson, president of the Essex County Medical Society and Dr. Otto Matheke, Sr., president-elect, greeted the members.

In her acceptance speech, Mrs. Santora stated that she would like to further plans for the Nurse-Scholarship and to establish a Nurse Loan Fund.

The following officers were installed:

President-Elect, Mrs. Jesse T. Glazier of Newark; First Vice-President, Mrs. Stuart Z. Hawkes of Boonton; Second Vice-President, Mrs. Joseph Clarken of Newark; Recording Secretary, Mrs. Albert B. Tucker of Newark; Treasurer, Mrs. Ralph Autorino of Montclair; Secretary to the Treasurer, Mrs. W. Alan Wright of East Orange; Directors, Mrs. Pascal Baiocchi of East Orange and Mrs. John Torrpey of Glen Ridge.

BOOK REVIEWS

Atlas of Peripheral Nerve Injuries. By William R. Lyons, and Barnes Woodhall, M.D., Durham, N. C. Pp. 339, Philadelphia, W. B. Saunders Co., 1949. ($16.00)

The title of this book is somewhat misleading. The clinical aspect of peripheral nerve lesions is sparsely covered and diagnostic criteria completely ignored. It is, however, a magnificent atlas of the histology and pathology of traumatic lesions of the peripheral nerves. The illustrations are excellent, the photography superb and the microscopic sections perfectly handled.

The atlas is derived from clinical material channeled by the Army through Walter Reed and Halloran General Hospitals from 1943 to 1945. The Army Institute of Pathology and the laboratories of each hospital contributed heavily to the project. It is of interest to note that the project enjoyed no elaborate budget and that the authors carried a heavy load of clinical and administrative duties while at work on this research.

The text is well written and lucid. Each illustration carries with it a detailed interpretation. The ultimate result is a splendid study of peripheral nerve injuries, of untold value to the neurosurgeon and neuropathologist but of doubtful value to the general practitioner and clinician in view of its restricted field of interest.

LEWIS H. LOESER, M.D.

Psychodynamics and the Allergic Patient. By Harold A. Abramson, M.D. Pp. 81. St. Paul, Bruce Publishing Co., 1948. ($2.50)

In June 1947 an unusual event took place in Atlantic City. At the meeting of the American College of Allergists, a board of experts was formed, consisting of five psychiatrists and five allergists. They discussed psychodynamics and the allergic patient. Dr. Abramson has recorded their remarks, together with the discussion from the floor. The latter half of this small monograph is the report of the panel proceedings.

The first part of this volume tells of the psychosomatic aspects of hay fever and asthma prior to 1900. Hippocrates, in his aphorisms, advises all asthmatics to abstain from anger and shouting. Floyer, in 1726, observed that asthmatics have more "fits" when angry and sad than when they are cheerful. Dr. Abramson also presents some cases from his own practice where psychosomatic factors were a major cause in the production of clinical symptoms in allergic patients.

This book is recommended for allergists, psychiatrists and general medical men interested in the psychosomatic aspects of allergic disease. Whether allergic disease is more clearly related to the psyche than other phases of general medicine, is a problem receiving intensive investigation at the present time.

FRANK L. ROSEN, M.D.

The Cancer Biopathy. By Wilhelm Reich, M.D., Orgone Institute Press. New York, 1948. Pp. 409. Translated by Theodore P. Wolfe, M.D.

Dr. Reich, says the translator "has discovered the etiology of cancer and opened the way for its cure. This is one of the greatest discoveries of the century". The author speaks of "primordial cosmic energy" to which he gives the name "orgone" and reports that this energy is present in the atmosphere as well as in living tissue. He finds that this orgone may be accumulated in a specially prepared box, the outside of which is made of organic material (which absorbs the energy), the inside of which is lined with metallic material—which reflects it. By placing a patient in this box, his tissue can thus be recharged with orgone. Dr. Reich complains that he has often been misquoted and misunderstood, so, to be fair to the author, the rest of this review is composed entirely of sentences taken verbatim from the book.

Under the term biopathy, we subsume all those disease processes which take place in the plasmatic system. A chronic disturbance of the sexual function must, of necessity, be synonymous with a biopathy. Cancer is a sexual biopathy or sex starvation disease. Sexual resignation is in the background of cancer biopathy. Cancer is living putrefaction of the tissue due to pleasure starvation. A radical fight against cancer requires a radical change in the sexual hygiene of the total population. Experiments with cancer patients consist in their sitting in an orgone accumulator. It was the sex-economic branch of biopsychiatry which succeeded in solving the riddle of cancer.

(The reviewer is aware of the unfairness of tearing sentences out of context; but in this case, these sentences fairly state the author's thesis. They are submitted without further comment, as it is believed that they speak for themselves.)

VICTOR HUBERMAN. M.D.

Modern Drug Encyclopedia and Therapeutic Index. Ed. by Marion E. Howard, M.D. 4th ed. Pp. 1283. New York, Drug Publications, Inc., 1949. ($12.50)

This is a comprehensive compilation of the products of many manufacturing companies. All of the valuable proprietary pharmaceuticals are here listed in one volume. Unprocessed products (such as opium, codeine, morphine, chloral hydrate and sodium bromide) are not listed as being available in their unprocessed forms. Thus, under the heading of supply, calcium chloride powder is not mentioned but ampoules of its solution by three different manufacturers are; and atropine sulphate is mentioned only in granules, tablets, ampoules and ointments by different companies. Similarly, the preparations of The United States Pharmacopoeia and The National Formulary are not included.

However, the host of proprietary preparations are important additions to a physician's equipment. Some, indeed are of great importance. Until this book was published, the chief source of information regarding these preparations was from thousands of brochures distributed by the manufacturers. Besides the handicap of the optimism of the products' sponsors, it was obviously impossible to maintain a comprehensive knowledge of all of them. This book encompasses all of the important ones together with their formulae and a concise and dispassionate description of their use. Besides the general index, it contains an index of products manufactured by individual drug companies and an index of therapeutic indications. An added use for the book will be in comparing the formulae of similar products of different companies, especially in the vitamin field.

Perhaps the book is too concise for the term "encyclopedia". With the thousands of items, much elaboration would make the volume unwieldy and difficult to use. However, for some products, the need is felt for more information before they can be used with assurance. Nevertheless, the listings are complete enough so that the reader will know whether further investigation of the product will prove profitable.

HAROLD S. CONNAMACHER, M.D.

Blood Transfusion. By Elmer L. DeGowin, M.D., Robert C. Hardin, M.D., and John B. Alsever, M.D. Pp. 587. Philadelphia, W. B. Saunders Company, 1949. ($9.00)

This book is remarkable in its scope and amount of detailed information in a rapidly advancing field of medicine. The wide experience of the three authors is reflected in the various chapters. The reader will find excellent discussion of the clinical aspects of the use of blood and blood derivatives as well as much immunologic information including the newer advances (the Rh and Hr blood factors etc.). The chapter on iso-immunization is an excellent summation and a valuable source of information for the clinical and laboratory worker. The importance of iso-immunization by means of transfusion and by pregnancy, as well as the resulting antibody formation and clinical consequences are clearly described.

An outstanding section devoted to laboratory procedures is detailed and excellently illustrated by many diagrammatic drawings. "The problem of visual presentation" has indeed been so treated that this volume should become a text and reference for all workers in the laboratory aspects of transfusion. Also included are well considered chapters on transfusion equipment and its preparation; operation of transfusion services; the preparation of plasma, and the treatment of blood from the donation by the donor, through blood storage, transportation, infusion and possible transfusion complications in the recipient.

This well organized volume will serve a valuable purpose in all medical laboratories both as an authoritative source book and as a text. The organization of the contents and the clear and concise style makes it possible to include the large number of detailed subjects. It can be read with benefit by any one interested in any aspect of blood transfusion.

EUGENE M. KATZIN, M.D.

Book Reviews continue on next page.

Cardiac Catheterization in Congenital Heart Disease. By Andre Cournard, M.D., Janet S. Bladwin, M.D., and Aaron Himmelstein, M.D. Pp. 108. New York, Commonwealth Fund, 1949. ($4.00)

This excellent monograph is divided into two parts, one dealing with the physiologic methods, and the other with clinical cases in which the technic is utilized.

The equipment and technics of right heart catheterization are described in a simple, straightforward manner, much in the style that one interested in developing such skill would desire. There is no aura of mystery attached to it at all and apparently all the advantages of a wealth of experience are incorporated in the text. The complications are presented, their rarity stressed and the means of avoiding them advised. A series of 20 illustrative x-ray observations demonstrating the various positions of the catheter in the cardiac chambers and the great vessels are excellent and instructive. The value of pressure curves in addition to oxygen determinations in routine catheterization is emphasized and well documented. The seventeen case reports are well studied both clinically and physiologically and demonstrate the importance of this technic in the diagnosis and selection of cases for surgery.

There is one glaring weakness in the book: a chapter of formulae for the calculation of systemic and pulmonary blood flow and of blood shunts. Various formulae are set down for the calculation of these all important determinations but no time is spent in the explanation of how they are derived. This seems inconsistent when one considers the detail devoted to other parts of the text.

All in all, the book is to be recommended to all internists, pediatricians and cardiologists with interest in congenital heart disease in order that they might become more ciosely acquainted with a procedure they are or will be advising their patients to undergo. For those who contemplate doing this procedure this monograph is an indispensible handbook.

Marvin C. Becker, M.D.

Surgery of the Eye. By Meyer Wiener, M.D. 2nd Ed. Pp. 426. New York, Grune & Stratton, 1949. ($12.00)

Filled with practical information clearly presented and well illustrated this second edition of Wiener's textbook of eye surgery is a basic volume for any ophthalmologist. The text and form of the first edition have been preserved practicaliy intact. The advances included are a discussion of McLain's corneoscleral suture in cataract extractions, Barkan's operation for congenital glaucoma with the use of a gonioscopic lens, Burch's operation with implant in evisceration, and the author's method of corneal impiantation. The book is set in smaller type with the result that its appearance is not as pleasing as that of the first edition.

Jonathan L. Harris, M.D., Newark

Obstetric Analgesia and Anesthesia. By Franklin F. Snyder, M.D. Pp. 401. Philadelphia, W. B. Saunders Company, 1949. ($6.50)

The author offers a fresh approach to the problem of pain relief during labor. Innovations in pharmacology and new technics of anesthesia perhaps have outstripped our knowledge of labor and its effect upon the child. Fetal respiratory injury is a pre-eminent cause of death associated with birth.

One section of this book is devoted to an evaluation of morphine, scopolamine, barbiturates, rectal ether, paraldehyde, chloroform, narcotic gases, and regional anesthetics. Experimentaliy during labor, severe depression was caused by morphine, barbiturates and paraldehyde. With scopolamine, no significant depression of the child was noted. Prolongation of labor, especially the first stage, was noted with morphine. With barbiturates and paraldehyde the expulsive mechanism was reduced or lost. No direct effect upon the labor mechanism was demonstrated for scopolamine.

This book is an objective analysis of various drugs used during labor and the methods of their use. Naturally, it can take no account of the clinical acumen and dexterity of the individual obstetrician-anesthesiologist which must play a very large part in the actual use of the various methods. This book should be read not oniy by the specialist in obstetrics but also by the "occasional obstetrician" who is wont to follow the leaders without fuily realizing the dangers of a method which can be used successfully by one who has more understanding of it.

Stanley Jay Goodman, M.D., Newark

Current Therapy: 1949. Edited by H. F. Conn and M. Edward Davis. Pp. 672. Philadelphia, Saunders, 1949. ($10.00)

Current Therapy, 1949, has been compiled for the practicing physician. It is a striking and ambitious book. Attempt is made to give two or more methods of therapy in order to avoid individual bias. In this respect, it not too surprising to see how close most authorities are in their basic thinking. Since the text is a compilation by various authors, it is inevitable that presentation be uneven, with differences in style and degree of detail in the individual articles. Because of the vast field of subjects covered, a certain degree of didactic simplicity is present which may be praised as a practical asset by some, but deplored as an unnecessary oversimpiification by others.

Since current therapy will undoubtediy continue changing with great speed, it appeared to this reviewer that the text might more reasonably have been presented in loose-leaf form, so that additions and deletions couid more economicaliy be made. Technically the book is weil presented, with easiiy-read two-column pages and clear type. The index is compiete. This book shouid be found on the desks of most practitioners.

Henry Green, M.D.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **August, 1949** **No. 8**

THERE has been little research directed at testing the efficiency of mechanical barriers to the air-borne passage of tubercle bacilli. Yet the importance of this type of study scarcely needs to be pointed out to the physician and the nurse whose duties bring them in close contact with cases of active tuberculosis.

THE EFFICIENCY OF GAUZE MASKS

Although there is no certain knowledge as to the size of the infectious particles concerned in the origin of human inhalation tuberculosis, there is considerable evidence to suggest that these are much smaller than the limits of ordinary visibility. Primary pulmonary tuberculosis in man takes root not in the upper respiratory passages but deep in the lung parenchyma, usually beneath the pleura. The effective pathogenic units must be assumed, therefore, to be smaller than the lumina of the terminal bronchioles. That the tubercle-bacilli-containing-particles responsible for naturally acquired air-borne pulmonary tuberculosis in rabbits are of microscopic dimensions is indicated by the fact that ultraviolet irradiation of the air of a room contaminated by tubercle bacilli protected rabbits from an air-borne contagion that caused progressive tuberculosis in 73 per cent of animals of the same genetic resistance similarly exposed in an unirradiated room. The ventilation of the irradiated room was such that some of the droplet nuclei of tubercle bacilli floating in the air were exposed to irradiation for only one second before inhalation by the exposed rabbits.

Therefore, it was not certain whether gauze masks with pores of relatively large magnitude, such as may be worn by individuals exposed to air-borne contagion of human tuberculosis, would filter out the dangerous invisible droplet nuclei of tubercle bacilli. There is evidence that six layer gauze masks, especially after repeated washing, will remove bacteria floating in the air without interfering with respiration.

Miss Esta H. McNett, of the Veterans Administration, designed a six-layered gauze mask to be worn by nurses engaged in the care of tuberculous patients. The efficiency of these masks was studied in an apparatus for quantitative air-borne infection modelled after the one described by Wells. The protective action of the gauze masks developed by Miss McNett was tested against the quantitative inhalation of droplet nuclei of tubercle bacilli which regularly induce pulmonary tuberculosis in rabbits.

The essential feature of the instrument was a nebulizer which generated droplet nuclei of tubercle bacilli. Most of these nuclei contained islolated bacilli; only occasionally were minute clumps, not larger in diameter than a red blood cell, liberated into the air. This infected air was drawn into an exposure chamber, into which the heads of the rabbits to be exposed protruded through a close-fitting collar. The infected air circulated past the noses of the rabbits and was removed through an exhaust pipe.

Three and six-layer gauze masks, 40 by 44 threads to the square inch, were sewn to fit the contour of the rabbit's head, neck and ears. The gauze in front of the rabbit's nose and mouth had no seams.

Rabbits without masks and rabbits wearing masks were exposed simultaneously to the inhalation of air containing droplet nuclei of virulent bovine tubercle bacilli of the Ravenel strain.

It was found that, if all the air respired by rabbits exposed to the inhalation of droplet nuclei of virulent bovine tubercle bacilli passes through three or six-layer gauze masks, there is a 90 to 95

per cent reduction in the incidence of primary pulmonary tuberculosis foci which develop within five weeks. It would follow that, if the respired air contains but a few bacilli, the masked animal will usually be protected from the otherwise fatal infection. Twelve of 20 masked animals were completely protected against air-borne contagion of such intensity that from 29 to 1,027 tubercle bacilli units were deposited in the lungs of simultaneously exposed unmasked rabbits.

Measurements of the thread diameters and interthread spaces of the masks by H. Shapiro showed that the superimposition of three to six layers of this material would occlude practically all of the spaces and in this way explain the results of the experiments.

One must be extremely guarded in applying these data to the protection of human beings. With the rabbits all of the respired air passed through the masks. To be equally effective for human beings exposed to air-borne infection of tuberculosis, masks must be worn in an equally effective manner. The masks protected rabbits from air populated with droplet nuclei of tubercle bacilli to a degree that would rarely, if ever, be found in the air respired by human beings. Human primary tuberculosis usually originates at a single pulmonary focus, whereas the unmasked rabbits in these experiments developed an average of 51 primary tubercles. Nevertheless, it seems reasonable to advise persons wearing masks to refrain from deep inspiration which may diminish the filtering efficiency of the masks.

Conversely, masks worn by coughing patients can hardly be expected to retain the invisible droplet nuclei of virulent bovine tubercle bacilli propelled through them during fits of coughing.

Summary—Under the conditions of these experiments, from 90 to 95 per cent of pathogenic droplet nuclei of virulent bovine tubercle bacilli in the respired air can be removed by gauze masks properly worn by rabbits during quiet breathing of heavily infected air.

The Efficiency of Gauze Masks, Max B. Lurie, M.D., and Samuel Abramson, V.M.D., American Review of Tuberculosis, January, 1949.

THE FACE MASK IN TUBERCULOSIS

The major obstacle to the rapid expansion of better care for tuberculosis patients and to the education of student nurses in tuberculosis nursing seems to be the recognized danger of contagion. The only known methods of protection for nurses against tuberculosis are: BCG (Bacillus Calmette Guerin) vaccine, available only to tuberculin-negative nurses, and communicable disease technic, based upon the use of mechanical agents—cap, mask, gown, and hand-washing. None of these agents except the mask protects nurses and auxiliary workers from infection by inhalation which modern medical opinon regards as one of the most important mechanisms in the transmission of tuberculosis.

The Face Mask in Tuberculosis, Esta H. McNett, R.N., American Journal of Nursing, January, 1949.

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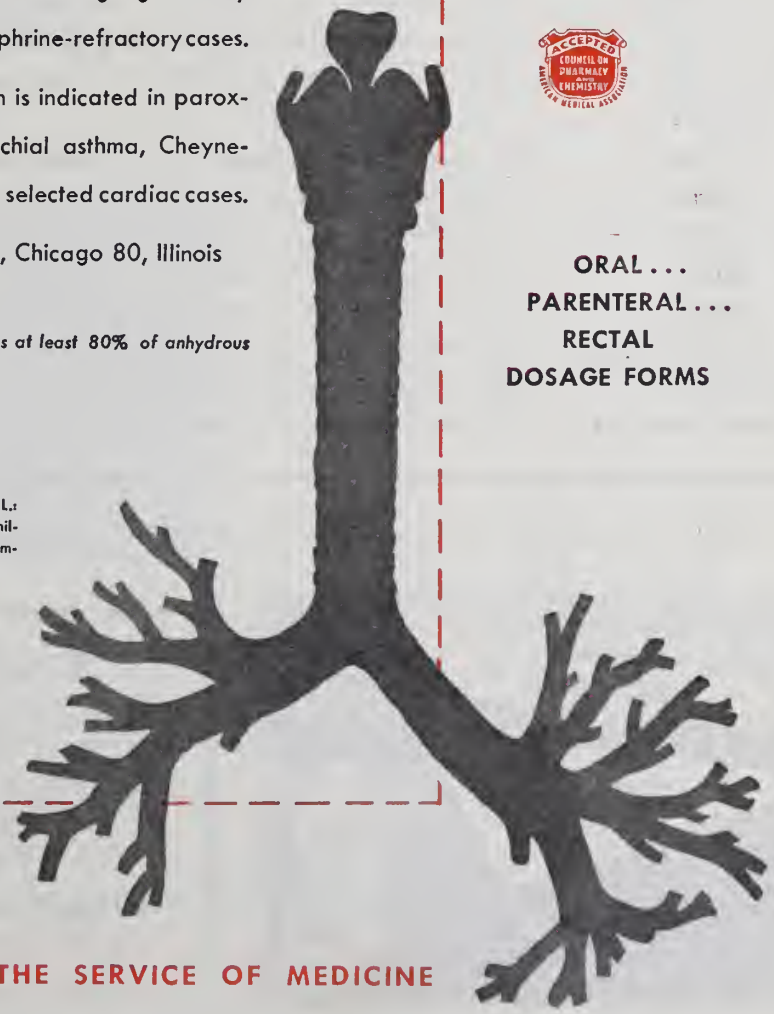
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1. Rackemann, F. M., In Cecil, R. L.: Textbook of Medicine, ed. 7, Philadelphia, W. B. Saunders Company, 1948, p. 539.



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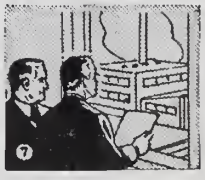
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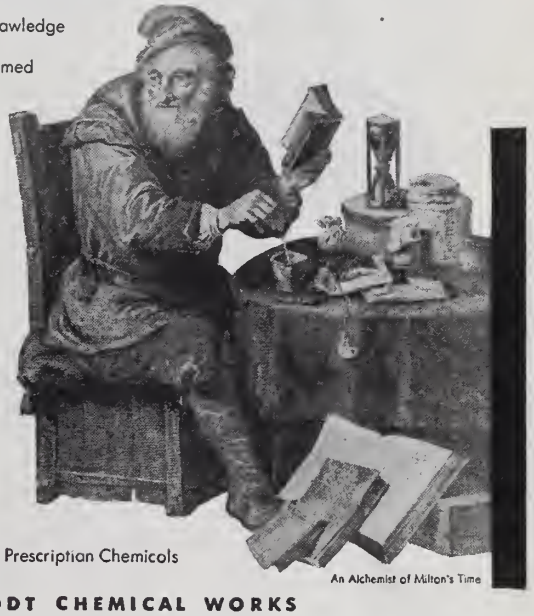
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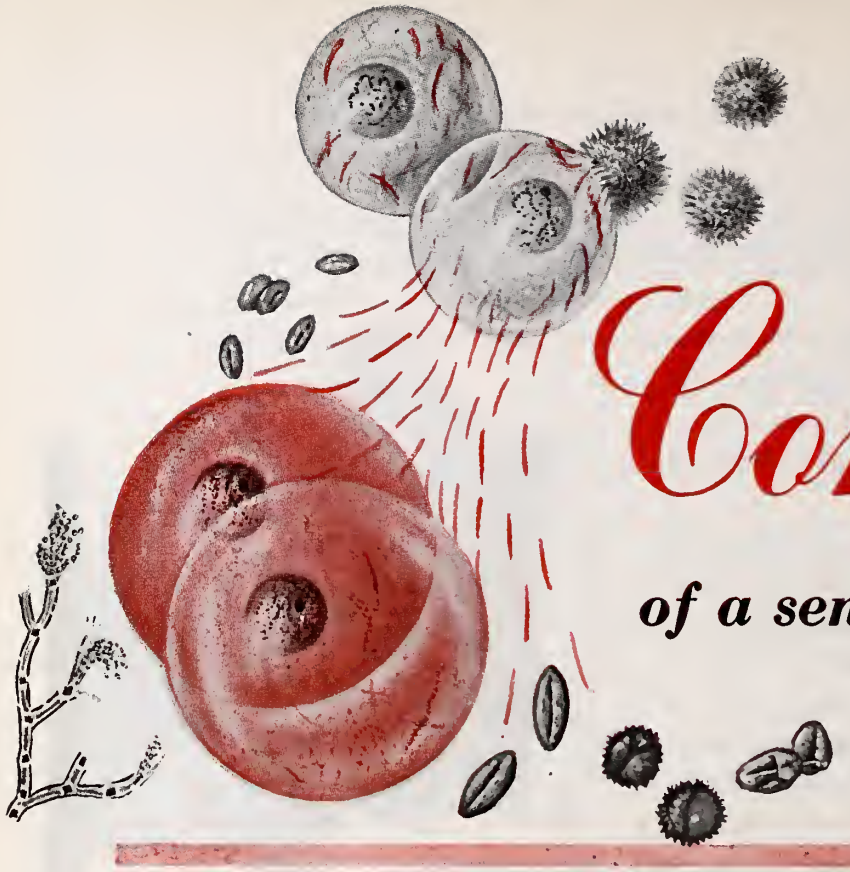
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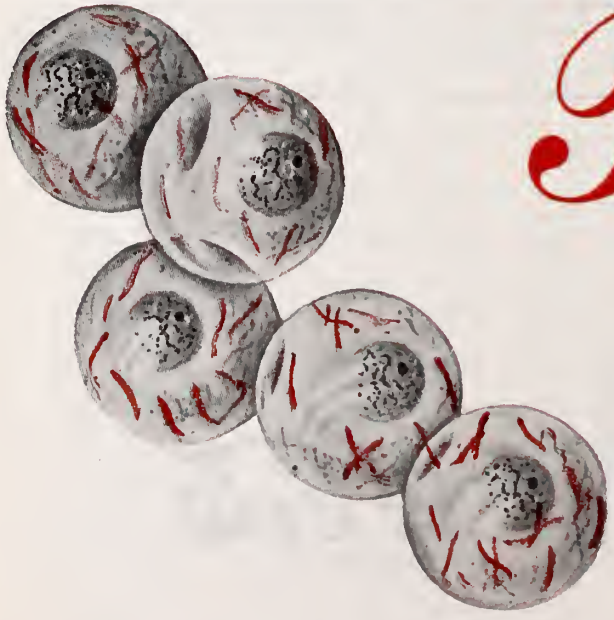
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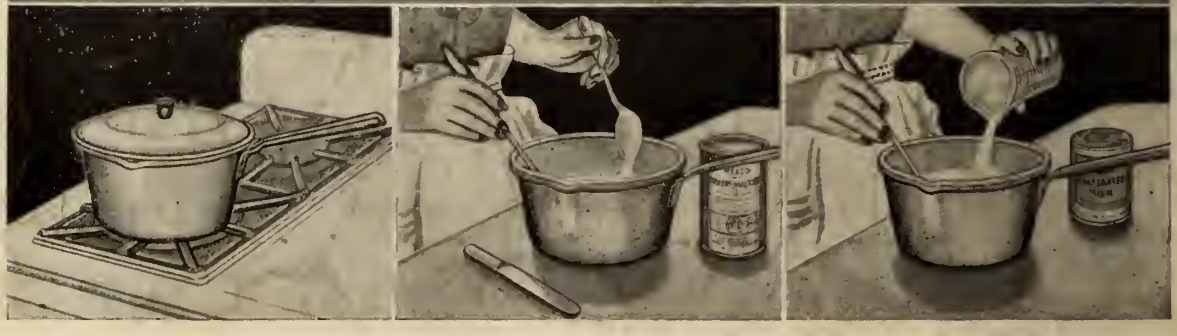
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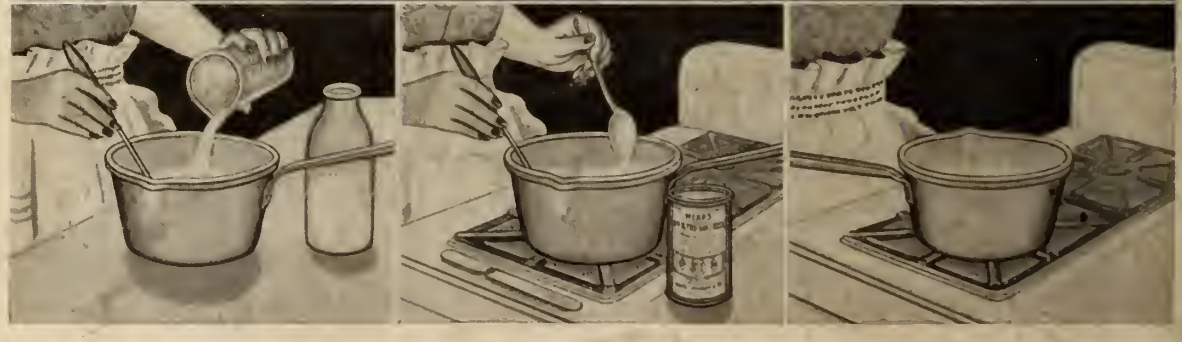
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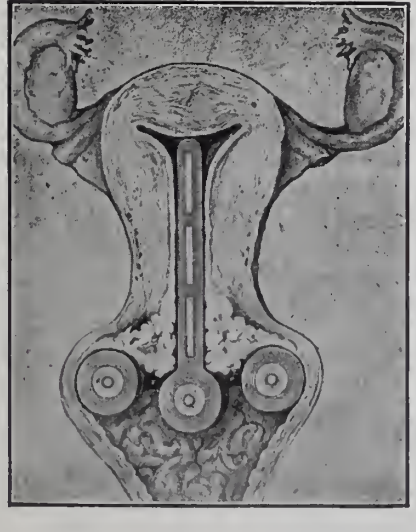
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*McLester, J. S.: Protein Comes Into Its Own, J.A.M.A. *139*:897 (April 2) 1949.

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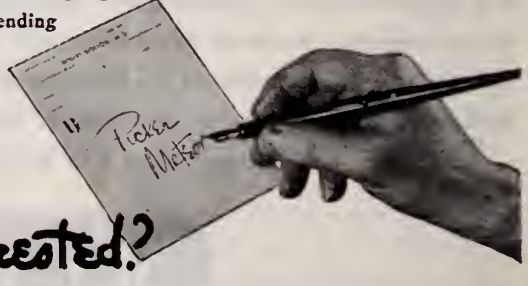
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Lyon H. Appleby, M.D., Vancouver, Canada
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Charles P. Bailey, M.D., Philadelphia, Pa.
Paul Banzet, M.D., Paris, France
William Bates, M.D., Philadelphia, Pa.
M. Leopold Brodny, M.D., Boston, Mass.
James J. Callahan, M.D., Chicago, Ill.
Meredith Campbell, M.D., New York, N. Y.
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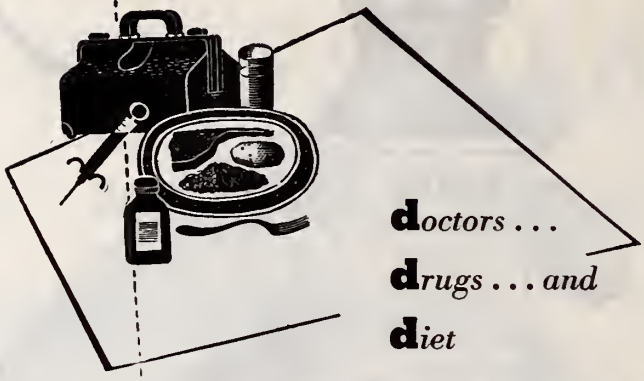
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1. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics, New York, Macmillan, 1947, P. 478.

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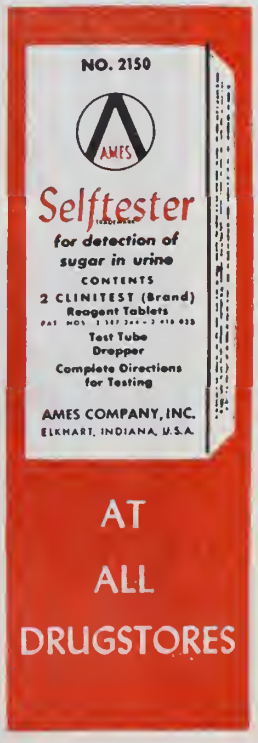
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† Wilkerson, H. L. C. and Krall, L. P.: Diabetes in a New England Town, Journal of the American Medical Association, 135:209 (Sept. 27) 1947.

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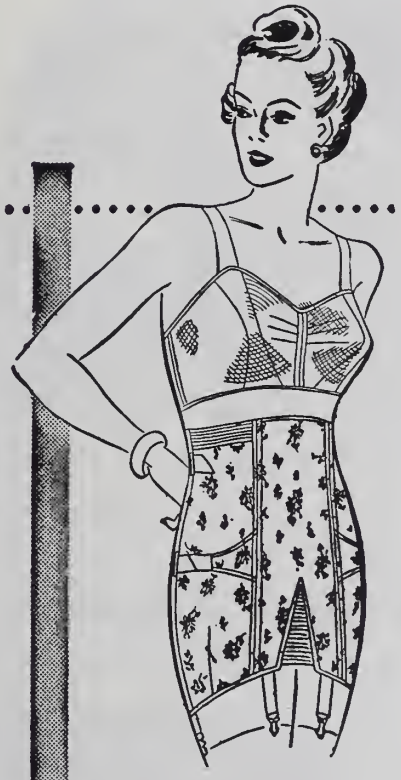


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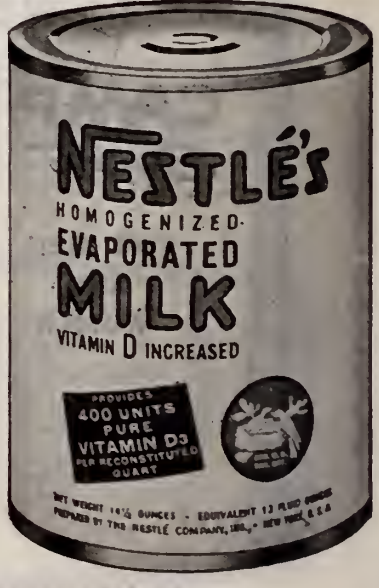
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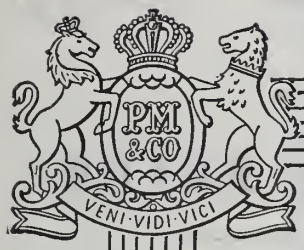
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1. Brewster, J. M., U. S. Naval Med. Bull. 49: 1-11, January-February 1949.

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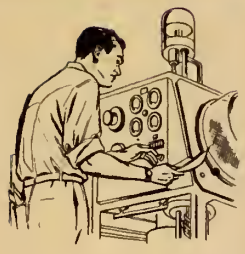


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PRESIDENT'S MESSAGE

For more than two years the American Medical Association and its constituent state societies, including The Medical Society of New Jersey, have urged component county medical societies throughout the country to organize local plans in every community in order to assure prompt medical service for everyone in the event of a family emergency.

Trends in medical practice and medical economics during the past decades have revealed and aggravated the need for such organized programs in many communities. Some of the factors contributing to this situation have been the growth of specialism, the tendency of more physicians to maintain offices apart from their homes, the habit of physicians in many communties to "take off" the same day or half-day as most of their local colleagues, and the increasing popularity of week-end trips out of town.

Perhaps the most serious and regrettable tendency evident among some elements of our profession—and we might as well be frank about it—is a growing lack of concern with emergency calls and an increasing unwillingness to respond to such calls when they involve any personal inconvenience or sacrifice.

The result is that, in all parts of the country, instances are repeatedly cited in which people have been unable, despite many frantic efforts, to obtain the services of a doctor in times of medical emergency.

"Try and get a doctor in this town on a Thursday afternoon," or "I guess people aren't supposed to get sick on Sundays around here," or "Aren't you doctors supposed to take night calls when people need you any more?". . . . These are some of the questions and complaints

† Deceased.

that are bruited about in many local communities.

Some of the complaints are spurious and the reports of their frequency are exaggerated. Even so, only one authenticated story of a sick person unable to obtain necessary medical care does us more harm, public relationswise, than we can accomplish by affirmative educational effort in weeks of trying.

Our friends and patients rightly hold the medical profession collectively responsible for making medical service available at all times of the day and night, every day of every year. It is one of the oldest traditions of our profession that we respond to human need whenever and wherever we find it and at whatever sacrifice to ourselves.

This is our joint responsibility and it must be met. It can be met only by collective action and planning on our part. If it is not met by us voluntarily, it will eventually be met by the compulsion of government agencies. One can readily imagine the sad plight of a government doctor who would refuse a call communicated to him by a federal officer!

I am glad to say that many of our county societies have acted effectively to set up practical, businesslike plans in the various communities within their counties to meet this need. On the other hand, perhaps half of our county societies even today have no definite plan, formal or informal, to handle emergency calls.

We cannot afford to wait any longer. Every community in our state must have a logical well-organized and repeatedly publicized method for providing emergency service in family emergencies.

I would like to request every doctor reading this message to ask himself, and to answer for himself, these questions: "Do I recognize my personal responsibility for the care of the sick — at any hour?" And: "Is there an emergency service plan operating in my community?" If there is not, put in a telephone call at once to the president of your county medical society and ask him to set the wheels in motion to solve this urgent problem. We all owe it to our patients, our community, ourselves, and the future of our profession to fulfill a basic responsibility that is part of the price of the privilege of being a doctor.

James F. Norton, M.D.,
President.

WE ARE THE LIBERALS

Few physicians, and perhaps even fewer of their friends, appreciate the vast dimensions of the present social struggle in which the controversy over "socialized medicine" is perhaps the most crucially significant battle sector. Physicians realize that the integrity of their science and the independence of their art would ultimately be compromised—if not, indeed, utterly destroyed — should medicine be subjected to bureaucratic control. The spiritual attractions of medicine as a career, the challenge of the doctor's unadulterated responsibility for the life and welfare of his patient and his proportionate freedom to practice his craft according to his own lights—these things he recognizes to be in jeopardy.

In resisting the bogus magic of federal medicine, he is striking a blow for freedom comparable in human history to the Boston Tea Party or John Brown's raid. He may actually be taking part in the critical phase of a struggle that will turn back forever the tide of statism and at the same time give life and form

to a new kind of social progress founded upon free, self-motivated individual action.

The word "liberalism", for all the strange bedfellows who have claimed or seduced it, has an inescapable sound and sense of freedom to it. Basically, liberalism means free action for social improvement. In the nineteenth century it was perverted to justify free exploitation of the economically weak by the strong. In the twentieth century we find this fine old word pre-empted by leftists as a palatable label for some impalatable ideas.

The possibility of a great new movement along a path equally distant from both laissez-faire irresponsibility and socialist denomination has been given strong impetus by such an event as the recent Goethe Festival in Aspen, Colorado. Here, Albert Schweitzer, one of the most famous physicians in the world, sounded what was perhaps the keynote of the proceedings in these words:

"In a thousand different ways mankind has been persuaded to give up its natural relations with reality and to seek its welfare in the magic formulas of some kind of economic and social witchcraft, by which the possibility of freeing itself from economic and social misery is only still further removed. And the tragic meaning of these magic formulas, to whatever kind of economic and social witchcraft they may belong, is always just this, that the individual must give up his own material and spiritual personality and must live only as one of the spiritually restless and materialistic multitude which claims control over him."

Anyone who still fails to grasp the significance of our struggle for medical freedom and the fearful consequences of failure, should read "1984" by George Orwell. *Life* editorially characterizes this novel as "one of the most remarkable books of our day . . . the warning which lies in (it) . . . is the most urgent to which the 20th century can listen" . . . a warning that is "particularly significant because in this case it comes from a left-winger who is cautioning his fellow intellectuals to beware lest their desire to help the comman man wind up in trapping him in hopeless misery."

Furthermore, no thoughtful reader of Orwell's book can fail to realize that there is no feature of the dismal civilization pictured for us thirty-five years hence that is not latent in the doctrines and formulae of socialism, communism and authoritarianism of various forms rampant in our society today.

What a heartening contrast one finds in such an event as the Goethe Festival as against the left-tinted "Conferences for Peace and Freedom". In Colorado, such stalwart critics of the mass-mind as Schweitzer, Ortega y Gasset and Robert M. Hutchins sounded a battle cry for a new ethic based upon respect for the responsible individual, for a new kind of social progress founded upon human consecration and example, for a new faith in the power of individual human virtue.

The doctor's fight for the preservation of freedom in medicine is part of this new movement which might take mankind out of a wilderness into which all other social theories seem only to lead him deeper and further astray. A consciousness of the grandeur of this struggle and a recognition of the consequences for good or ill in its outcome may give us new courage and greater determination for the struggle ahead.

ORIGINAL ARTICLES

DIAGNOSTIC PROBLEMS OF POLIOMYELITIS IN CHILDREN *

Henry Simon, M.D., Dr.P.H., Newark, N. J., Ellis L. Smith, M.D., Belleville, N. J., and Horace O. Bell, M.D., Belleville, N. J.

Purpose of this paper is to emphasize diagnostic problems encountered in spinal and bulbar poliomyelitis in children. Case reports will show how easy it is for a busy physician to confuse poliomyelitis with other diseases. The cases presented are those diagnosed and treated at the Essex County Isolation Hospital in the past few years. It is hoped that more accurate diagnosis will improve the morbidity and mortality statistics of poliomyelitis in this community.

TRANSITORY WEAKNESS OF AN EXTREMITY FOLLOWING CONVULSIONS

1. Eighteen-month old child sent into Essex County Isolation Hospital as a spinal type of poliomyelitis. A history of a tonic convulsive seizure lasting one hour, with eyes turned to the side, twitching of the extremities and temperature of 103. Sticking the left foot with a pin resulted in withdrawal of that foot; sticking the right foot resulted in fibrillary twitching of the thigh muscles, but no withdrawal. The same phenomenon occurred in the right and left hands. Reflexes and spinal tap were normal and the weakness cleared up in three days.

It is rare for convulsions to precede an attack of poliomyelitis. This case is not considered spinal poliomyelitis.

SPINAL TUMOR SIMULATING POLIOMYELITIS

2. A 13-year-old white male was sent to the isolation hospital as a case of poliomyelitis. Duration of disease before admission was four weeks. Illness began with severe pain in the leg and he was treated for "rheumatic fever". He then developed a flaccid paralysis of both legs. A diagnosis of poliomyelitis was made, whereupon this noncontagious case was sent to a contagious hospital.

Neurologic consultation confirmed the flaccid paralysis of both legs with absent reflexes. However there was loss of sensation below both knees. X-ray of the spine showed a widening of the interpeduncular spaces in the lumbar region. A cauda equina tumor was found at operation.

This was another case where the family physician neglected to test for sensory disturbances.

BRAIN ABSCESS SIMULATING SPINAL POLIOMYELITIS

3. White male, five years old, admitted to isolation hospital with a diagnosis of poliomyelitis. Ten days earlier, he had suddenly become paralyzed on the right side. This was a flaccid paralysis. His paralysis was preceded by a sore throat.

Physical Examination showed no neck rigidity, but the right arm was limp and reflexes were not obtained. Pain, touch and temperature sensations were present. The left upper extremity was normal. The right lower extremity was flaccid and no knee jerks were obtained; no ankle clonus; he reacted normally to touch, pain and temperature stimuli. There was a positive right Babinski.

Lumbar puncture revealed clear fluid, with a cell count of 92, mostly lymphocytes; globulin was normal.

The child became progressively worse, developed extreme drowsiness, respiratory difficulty, a right facial paralysis, and a spastic paralysis of the left arm and left leg, and soon died.

Autopsy Report: The meningeal vessels were congested. The brain was enlarged and the convolutions were flattened. In the left frontal lobe, there was an abscess filled with greenish pus. The abscess had a well-marked wall and extended outward so that it was covered by a thin layer of brain cortex. The diagnosis, of course was brain abscess.

On admission the only sign of an upper motor neurone lesion was the right Babinski. Several days before death the upper motor neurone involvement became more apparent when the child developed a spastic paralysis.

SPINAL POLIOMYELITIS CONFUSED WITH LANDRY'S PARALYSIS

4. A 13-year-old white male was admitted with a diagnosis of spinal poliomyelitis. Duration of disease before admission was four days. He went swimming five days before admission. This was followed by nausea and a stiff neck. He then developed weakness of both upper extremities. There was no difficulty in swallowing.

* One of a series of articles on Poliomyelitis published by the above authors. Dr. Simon is a member of the Newark Health Department. Dr. Smith and Dr. Bell are, respectively, medical director and chief resident at the Essex County Isolation Hospital in Belleville.

On admission there was no neck rigidity, but we found pain in back of the neck on extreme anterior flexion and a positive bilateral Brudzinski. There was a flaccid paralysis of upper extremities. Lower extremities were normal. The right side of the diaphragm was paralyzed.

Lumbar puncture showed slightly hazy fluid, with 170 white blood cells per cubic millimeter, 96 per cent lymphocytes, globulin 1 plus and sugar normal.

On the following day, the upper extremities showed flaccid paralysis. The abdominal reflexes were absent. The feet were now cold and there was almost complete flaccid paralysis of the lower extremities. There had been a rapid descending paralysis from the upper extremities to the lower extremities.

Was this a form of Landry's paralysis? The opinion of the staff was that this case clinically is poliomyelitis, and that the differential diagnosis from a descending Landry's paralysis was very difficult.

This patient developed respiratory paralysis and died two days after admission. Final diagnosis was spinal type of poliomyelitis with respiratory involvement.

TRANSVERSE MYELITIS SIMULATING POLIOMYELITIS

5. White male, 17 years old with a history of pain along the lower portion of the spine and left thigh associated with progressive weakness in left lower extremity. Duration of illness before admission was only one day. Physical examination revealed slight rigidity of the neck and a negative "spine sign". Upper extremities were normal; the left leg was paralyzed and the right leg showed muscular twitchings. Lumbar puncture showed 695 cells. Within several days he had developed a flaccid paralysis of both lower extremities. The neurologic consultant felt that this was a case of transverse myelitis, not poliomyelitis. This was shown by the sensory disturbances present. He had lost the sensation of pain, as shown by the pin-prick test. Catheterization was painless.

One cannot emphasize too strongly, the necessity for routinely testing for sensory disturbances in the presence of a flaccid paralysis. Once again, a case which belonged in the neurologic ward of a general hospital was unnecessarily sent by the family doctor to a contagious disease hospital.

CEREBRAL HEMORRHAGE PRODUCING THE PICTURE OF BULBAR POLIOMYELITIS

6. An eight-year-old white male sent to the isolation hospital with a diagnosis of bulbar poliomyelitis. Duration of disease before admission was three days. A week prior to admission he suffered a bruise over the right orbital ridge. His illness began with nausea, vertigo, diplopia, difficulty in swallowing, nasal regurgitation and nasal twang.

He showed a right facial paralysis, marked neck rigidity, positive bilateral Kernig and Brudzinski and *tache cerebrale*. There was a large amount of mucus in the throat and his speech showed a nasal twang. There was no weakness or paralysis of the extremities. The first lumbar puncture was performed at an outside hospital and showed a few red blood cells and 250 white blood cells per cubic millimeter with 65 per cent polymorphonuclears. The second lumbar puncture, done at the isolation hospital, revealed a uniformly bloody fluid with no xanthochromia.

The large amount of mucus in the throat required frequent suctioning. He became progressively worse and died within 24 hours. There was no autopsy.

This shows how a cerebral hemorrhage due to trauma can produce a picture resembling early bulbar poliomyelitis. The first spinal tap prior to admission to our hospital showed a few red blood cells ascribed to trauma of the spinal needle. Only at the isolation hospital, where the uniformly bloody tap was obtained, was the diagnosis of cerebral hemorrhage made.

BRAIN TUMOR SIMULATING SPINOBULBAR POLIOMYELITIS

7. A ten-year-old white male was sent to the Essex County Isolation Hospital with a diagnosis of bulbar poliomyelitis. Duration of symptoms before admission was two weeks. The mother had noticed that the child began to choke on his food. Some food went into the back of his nose. He developed a mild cold and a cough. One week prior to admission, gait became unsteady and he had severe headaches. Then headaches subsided and were replaced by vertigo and lethargy. The day before admission he began to vomit uncontrollably. The impression of a neurologic consultant was that this "could be" bulbar poliomyelitis. Lumbar puncture prior to admission to our hospital revealed clear fluid with one lymphocyte per cubic millimeter, a total protein of 29 milligrams per cent, chlorides of 660 and sugar of 90.

Physical examination disclosed a left facial paralysis and nuchal rigidity. He had flaccid paralysis of the left side with a positive bilateral Kernig. Babinski was positive on the left and questionable on the right. Sensory changes were not present. It was then the opinion of the neurologic consultant that the "patient had a virus infection involving the basal ganglion, pons and medulla".

X-rays of the skull were negative.

Progress Notes: Difficulty in swallowing and respiratory difficulty were present. Throat was suctioned frequently to remove mucus. Condition became progressively worse and patient died on the fourth day after admission.

Autopsy showed a medulloblastoma of the [illegible]s.

The difficulties in the diagnosis of this case are emphasized when it is noted that two neurologic consultants felt that this might be a case of bulbar poliomyelitis. As a result a noncontagious case was sent to a contagious hospital.

BULBAR POLIOMYELITIS MISTAKEN FOR DIPHTHERIA

8. A six-year-old white male was sent to the isolation hospital with a diagnosis of diphtheria. Duration of disease before admission was four days. He had been having difficulty in swallowing and had a nasal twang. This patient received 10,000 units of diphtheria antitoxin before admission. He had a moderate amount of nuchal rigidity, and a positive bilateral Kernig and Brudzinski. The gag reflex was absent.

The child showed difficulty in swallowing, marked nasal twang, and regurgitation of fluids through the nose. These symptoms cleared in three weeks. The final diagnosis was bulbar poliomyelitis.

SUMMARY

Eight cases are presented which were admitted to the Essex County Isolation Hospital with paralytic symptoms. In six of these, the admission diagnosis of poliomyelitis was wrong. One admitted as diphtheria proved to be poliomyelitis.

Even in the presence of paralysis, the diagnosis of poliomyelitis is not a simple problem. The following are some of the conditions admitted to this hospital as poliomyelitis, in addition to the ones presented: Guillain-Barré syndrome, tuberculosis of the spine or hip, arthritis, fractured bone, osteomyelitis, infectious mononucleosis with neurologic signs, scurvy, pernicious anemia, trichinosis, rheumatic fever, and endothelioma of the meninges.

A history of an acute febrile illness with (or followed by) a flaccid paralysis and a cerebrospinal fluid showing an increased number of cells, usually with mononuclear cells predominating, is strongly suggestive of acute poliomyelitis. It must be remembered, however, that non-paralytic or paralytic cases may show a persistently normal spinal fluid.

If, in addition, on physical examination one finds any or all of these signs present, namely the two spine signs,—"kiss the knees" and "tripod sign",—and the "head drop" sign, the diagnosis is more certain. All children with flaccid paralysis should be routinely tested for sensory disturbances, since their presence rules out poliomyelitis.

Finally, our brain abscess case shows that the presence of signs indicating upper motor neurone lesions (such as spastic paralysis and a Babinski) rules out poliomyelitis.

INTERNATIONAL COLLEGE OF SURGEONS

The International College of Surgeons, United States Chapter, will hold an Annual Assembly in Atlantic City, November 8 to 12, 1949.

Sixty eminent surgeons from the United States and abroad will present papers covering subjects in general surgery; eye, ear, nose and throat surgery; gynecology; obstetrics; urology; orthopedic, thoracic, plastic, and neurologic surgery. Extensive technical and scientific exhibits will be displayed by leading manufacturers of surgical instruments, x-ray apparatus, operating room and hospital equipment, pharmaceuticals and others.

Arnold S. Jackson, M.D., secretary of the United States Chapter, has reported that over 500 surgeons will be received as Associate Fellows and Fellows of the International College at the colorful Convocation ceremonies to be held in Convention Hall, Atlantic City, on November 10.

Among the surgeons who will participate in the program are: Alfred Adson, Rochester, Minnesota; W. Wayne Babcock, Philadelphia; Paul Banzet, Paris, France; John Garlock, New York; Raymond McNealy, Chicago; Henry Meyerding, Rochester, Minnesota; Richard W. TeLinde, Baltimore, and Max Thorek, Chicago.

Special surgical clinics will be held on Monday, November 7, in Philadelphia hospitals.

All doctors interested in surgery are invited to attend, and may obtain a program upon request to Dr. Arnold S. Jackson, 1516 Lake Shore Drive, Chicago, Illinois. For hotel reservations, write to Dr. David B. Allman, 104 St. Charles Place, Atlantic City.

SPOROTRICHOSIS *

M. H. HOLLAND, M.D., Weehawken and
D. A. MAURIELLO, M.D., Jersey City, N. J.

Sporotrichosis is usually considered rare in the New Jersey area. It is endemic in France and the Mississippi Basin and has been occasionally reported in the northeastern and western parts of this country. However, eighty per cent of the recorded cases in America occurred [1] in the Mississippi Valley area.



FIGURE 1. Lesion before treatment showing so-called "Sporotrichotic chancre".

We recently encountered a patient with continued residence in New Jersey who had the typical lesions of sporotrichosis which made the diagnosis possible clinically. Because of its isolated occurrence in this area, it is reported in order to emphasize the characteristic lesions and the manner of making the diagnosis.

An 11 year old school girl, came to the dermatology clinic of the Jersey City Medical Center in March 1947, because of leg ulcers. She was apparently well until January 1947, at which time she developed an ulcer of the right foot which failed to heal with the preparations prescribed. The primary ulcer was followed by others on the leg. The patient had been continually in Jersey City but had played in a vegetable garden and handled chickens, dogs, cats and rabbits, any one of which could serve as a source of infection. There had been no previous history of skin lesions. Systemic review was negative. Family history was noncontributory.



FIGURE 2. Leg before treatment.

Physical examination revealed no abnormalities of head, neck, chest, or abdomen. The positive findings were limited to the right lower extremity. A "sporotrichotic chancre" [2] of the right foot was present with multiple individual nodules ascending, chain-like, along the course of the draining lymphatics up the leg to the right groin where the inguinal lymph nodes were enlarged. Some of the nodules had broken down to form suppurative ulcers. There was a fibrous cord-like induration palpable subcutaneously between the nodules. On the basis of this typical presenting picture (Fig. 1, 2), a clinical diagnosis of sporotrichosis was made and the patient was hospitalized for diagnostic confirmation and therapy.

* From the Dermatologic Service, Medical Center, Jersey City, N. J., Dr. Charles H. Purdy, Director.

1. Foerster, Harry R.: Journal of the American Medical Association, 87:1605 (Nov. 13, 1926).
2. Pillsbury, Donald M., Sulzberger, Marion B., and Livengood, Clarence: *Manual of Dermatology.* (Military Medical Manuals, National Research Council). W. B. Saunders Co., p. 218 (1942).

White blood count was 17,500 of which 85 per cent were polynuclears. Hemoglobin was 11.5 Grams. Wassermann was negative. Cultures from the discharge were positive within five days. Culture mounts revealed the characteristic hyphae and conidiophores terminating in clusters of pyriform conidio, the so-called sterigmata.

Therapy with iodides was then started. The patient responded slowly but definitely to the oral administration of saturated solution of potassium iodide in rapidly ascending doses, beginning with ten drops three times a day, and increased by five drops until 30 drops three times a day was reached.

This was continued for eight weeks. It was discontinued because of gastric irritation, in spite of masking the drug in various vehicles. She received, in addition, topical applications of an aqueous solution containing 2 per cent potassium iodide and 0.2 per cent iodine. The patient continued to improve, but fractional doses of superficial irradiation were administered to secure complete involution of the residual nodules. The patient has been free of disease for the past 18 months.



Figure 3. Lesions 6 weeks after treatment begun.

Sporotrichosis is caused by one of the true deep fungi, Sporotrichum Schenkii, and requires a condition of lessened resistance in the host at the time of inoculation. It is an occupational disease in the sense that most cases occur in farmers and horticulturists.[1] The primary lesion occurs on an extremity at the site of contact and inoculation. Infection spreads upward along the path of the draining lymphatics resembling links of a chain. Although these localized lymphangitic and multiple gummatous lesions are characteristic of the disease,[3] visceral and septicemic forms occur. The disease may simulate, among others, common abscess, tularemia, tuberculous ulcer, gumma, and the other mycoses.[4] Diagnosis can be made readily from the clinical picture. It is easily confirmed by culturing the material on Sabouraud's medium (dextrose-agar). The appearance of the culture and the microscopic findings on culture mounts are unmistakable. Treatment is uniformly effective and easy to administer. It consists of iodides, orally and topically, up to a month after apparent cure of the disease. Radiotherapy is used occasionally to promote resolution of the nodules.

2412 Palisade Avenue, Weehawken
Jersey City Medical Center

3. Sutton, R. L., and Sutton, R. L., Jr.: *Diseases of the Skin.* Tenth edition. St. Louis: C. V. Mosby Company, p. 1168 (1939).

4. Flo, Spencer C., and Smith, Paul E.: New England Journal of Medicine, 234:50 (1946).

THE WEIGHT OF A FEATHER

How much does an ordinary feather weigh? So little that phrases like "light as a feather," and "feather-weight," have come to be a part of our language. But, how much does a *Red Feather* weigh? Ah, that is another matter, for the Red Feather, when weighed with human welfare, is the strongest force for community benefit in America today. So give enough to the Community Chest to support the Red Feather, the heaviest little feather-weight in the world!

KEEPING DISEASES ALIVE

Malaria, smallpox, tuberculosis, venereal disease, diphtheria, many others, could all be got rid of—from the whole world, without any further knowledge or research, if we had mental health and social health in the people of the world, if enough people in enough places could think in factual terms and had good mental health. Nothing keeps the diseases alive except ignorance and shortsighted self-interest. Long-sightedness would get rid of those things quickly. Brock Chisholm, M.D., *Mental Hygiene.*

NON-SURGICAL ORTHOPEDIC MANAGEMENT OF RHEUMATOID ARTHRITIS *

Daniel E. Kavanaugh, M.D., Newark, N. J.

The aim of orthopedic management in the care of patients with rheumatoid arthritis is essentially the same as it is for all orthopedic treatment. We strive to prevent additional functional loss and to stabilize the skeletal components of the body in the best architectural design possible from the standpoint of function and of cosmetic result. We try to promote proper movement of all joints through the full obtainable range of motion and to restore coordination of the entire body, so that the patient may be independently ambulatory and, if possible, be able to resume activities essential to his individual pursuits of life.

In New Jersey we have no hospital with a major interest in the treatment of arthritic patients. Our general hospitals, equipped chiefly for the treatment of acute cases, have not the facilities, in most instances, to allow us satisfactorily to treat a certain proportion of our severely afflicted cases. We are, therefore, faced wih the problem of deciding upon those cases acceptable for treatment.

In determining which cases to select for rehabilitation we decide:

1. Whether we shall tie up a bed in a general hospital for six months to two years treating a patient who has a doubtful "rehabilitation prognosis". We must consider that the use of one hospital bed in this same time may allow us to rehabilitate a number of cases whose prognosis is more favorable.
2. Whether the orthopedic management of a case will make the patient ambulatory for a period of time sufficient to warrant the expenditure of time and effort by the doctor, the use of hospital facilities over a long period of time, as well as the expense to the patient.
3. Whether the patient has physical limitations which will interfere seriously with his capacity to be ambulatory. I refer to such factors as serious cardiovascular impairment, and the patient's inability to use crutches or a walker without serious damage to the upper extremities when his rehabilitation reaches the ambulatory stage.
4. Whether the patient will remain in the hospital for the entire period of hospitalization which we consider necessary for him.
5. Whether this patient will have adequate convalescent care at home to remain rehabilitated, after he ceases to need hospital care.

We must weigh all these factors before we accept responsibility for the patient's rehabilitation.

In planning the orthopedic management of rheumatoid arthritis, we must remember that during the course of treatment we should not seriously deplete the patient's general condition. We maintain the patient in the best possible physical condition and, if necessary, fortify him with a transfusion when indicated. Should it become necessary to do so, we interrupt a procedure which is depleting the patient and resume it when his condition permits. It is necssary to do this in order that we may prevent a flare-up of the disease itself. The emotional stability and the general morale of the patient should also be kept at a high level.

The plan of non-surgical orthopedic management of rheumatoid arthritis which we have found successful is limited chiefly to:

1. Prevention of any additional loss in muscle power and in joint function.
2. Treatment of muscle spasm and contracture.
3. Treatment of muscle atrophy and muscle incoordination.
4. Management of the ambulatory stage.

THE BED-REST PERIOD

No case of rheumatoid arthritis is properly managed unless care is taken to prevent additional disability. During the course of active management, we regularly examine the patient to check the status of those joints which are not receiving immediate attention. We supervise the patient's posture in bed. We permit only a low elevation of the back rest. To assist him in turning in bed, we provide an overhead horizontal bar. In some cases we also provide him with side rails. We warn the patient against using the head rails of the bed when he contemplates changing his position. Few patients accomplish this without strain on the shoulder joint. We encourage him to refrain as much as possible from the usual

* Read at the 183d Annual Meeting of The Medical Society of New Jersey on April 25, 1949.

"hands-on-chest" position. Supports may be fashioned to overcome this tendency. We cannot stress too strongly the need for careful supervision of initially quiescent joints of the upper extremity. Flexion deformity of the knee developing during the course of active treatment, is generally considered inexcusable.

In the management of muscle spasm the orthopedist makes use of rest casts applied with or without anesthesia. The circular cast is applied and within twenty-four hours or so, the cast is bivalved and the posterior portion is used as a rest cast. In the lower extremities the cast maintains the foot in the neutral position between inversion and eversion, the ankle in the full range of dorsi-flexion, and the knee in the full range of extension. The hip is maintained in the neutral position of rotation by a bar secured to the back of the cast behind the ankle. The cast extends byond the toes to prevent pressure of the bedclothes. If both legs are included in rest casts, they are joined at the knee and foot to promote complete muscular relaxation. As muscle spasm subsides, we place a sufficiently thick pad in the cast behind the ankle to maintain the increased range of extension of the knee. The cast on the upper extremity allows the fingers to be free, the wrist to be in dorsi-flexion, the forearm to be in supination and the elbow to be at an angle of about ninety degrees. Every effort is made to keep the shoulder abducted as much as possible in the position of external rotation. Whenever indicated, two casts are made for the elbow, one in the full range of flexion and the other in the full range of extension. One is used at night, the other during the day. The patient uses the rest cast on a schedule prescribed by the doctor. This cast causes very little interruption in the use of all forms of physical therapy including muscle development and muscle coordination.

In cases presenting a moderate degree of joint contracture, the orthopedist uses manipulation under anesthesia and the application of a cast which will, within a period of five to seven days, be converted into a rest cast. With complete muscular relaxation, we move the joint from the full obtainable range of motion in one direction to the full obtainable range of motion in the opposite direction. A moderate amount of force is exerted to increase this range of motion. In judging the amount of force to be applied to a joint, only experience and judgment can guide us. We use the least amount of force to accomplish the amount of correction which our experience has taught us to expect. In the knee joint, we keep repeating this maneuver taking care to force the upper end of the tibia forward as we extend the knee. Whenever much force is required, we may hear coarse snapping sounds which usually represent the yielding of ligamentous or joint capsule attachments. In our experience this has seemed to have been necessary, desirable and attendant with no untoward complications. We have been more concerned, however, lest we cause a stretching of nerves or blood vessels. Remember that some contractures are incapable of correction by manipulation. Whenever a contracture of the knee is marked, there is a strong tendency, as extension occurs, for the proximal end of the tibia to be displaced posteriorly and for the knee to assume the position of genu valgus. If we anticipate these complications, we seriously consider skeletal traction, posterior capsulotomy or a combination of both. The distal end of the tibia may be crushed by the talus in forcing the ankle into dorsi-flexion. In correcting severe plantar flexion, I recommend tendon lengthening and, if necessary, a posterior capsulotomy. It is exceedingly important that the patient be given adequate sedation for the first twenty-four to forty-eight hours. We commonly insist that the patient receive a sixth of a grain of morphine every four hours or even every three hours, if necessary, for the first twenty-four hours. Thereafter we use morphine as indicated. Usually by the third day the patient has become reasonably comfortable. When the cast is removed on the fourth or fifth day, we insist that the extremity be removed from the cast for not more than one hour at a time. If the extremity is allowed to remain out of the cast for a longer period, sufficient muscle spasm may develop almost to prevent replacement in the cast without great pain. Within two or three days, the extremity is allowed out of the cast

for increasing periods of time to allow the patient to accomplish voluntary motion of all the immobilized joints. In cases properly selected for manipulation, the period of hospitalization has been considerably shortened.

In moderately severe contractures of the knee joints, we use skeletal traction. About eight pounds of traction is applied to a wire through the upper end of the tibia to prevent its posterior displacement. Twelve pounds of traction is applied to a wire through the distal end of the tibia to accomplish extension of the knee. When the knee becomes extended to about 160 degrees, the wires are removed. Traction is then applied to a wire through the os calcis, for a brief period, possibly three or four days, to obtain further extension. If the patient's condition at this time permits, we then proceed with manipulation under anesthesia and the application of a plaster cast which is made removable within a period of five days. When we remove the knee from the cast, we may find the extension of the knee increased by ten to fifteen degrees. During the course of traction, the leg is suspended in a Thomas splint with a Pierson attachment. The patient who requires skeletal traction must have the closest kind of observation by the orthopedist, plus good nursing care, since this procedure may be very taxing for the patient. Should we observe any tendency to depletion of the patient's general physical condition, the traction is interrupted temporarily and a cast applied maintaining the degree of extension which has been accomplished. Supportive measures are then instituted until such time as traction may be resumed. Skeletal traction definitely lessens the danger of complications from the stretching of blood vessels and nerves.

The treatment of muscle atrophy and muscle incoordination begins when the orthopedist first sees the patient, if it has not already been instituted. To preserve or restore muscle power in the upper and lower extremities, it is necessary to establish a definite muscle training program, supervised by the doctor, in which the patient and the physical therapy department participate. The patient's participation is probably the more important. We insist that the patient develop the habit of voluntary exercise of all joints as much as possible every day. He remains diligent in carrying out these exercises not only throughout his convalescence but after he has become successfully ambulatory. With a proper muscle training program a number of our patients, confined to bed for a few months or more, have had sufficient muscle power to require no support of the knees when they have reached the ambulatory stage.

THE AMBULATORY PERIOD

We now come to the ambulatory period of rehabilitation. When the sedimentation rate indicates that the activity of the disease has been reasonably well arrested, we may consider the possibility of getting the patient on his feet. At this time it is necessary that we determine (by muscle resistance tests) whether the patient has power in the lower extremities sufficient to maintain his postural correction without the use of a support for the knees. If patients require a knee support, we use a removable "castex" or celluloid cast or a caliper brace. At times we find it desirable to use one of these supports on each knee. The patient should be provided with a chair which is elevated to allow him to sit and to rise with less effort. Each case is studied to determine whether he requires the use of a walker, crutches or canes as he begins to walk.

From that moment, we want the patient to be so "posture-conscious" that he will not permit any of these walking aids to interfere with his effort to maintain good posture. We supervise his footwear and recommend those shoe alterations which his specific foot problems dictate. For patients with low back pain, we provide a firm supporting corset reinforced with steels, or a steel spinal brace. If the patient is suffering from Marie Strumpel's disease of the spine, we prefer a removable "castex" cast which maintains the spine in the full obtainable range of extension.

CONCLUSION

In this short paper I have offered a condensed version of our plan for the non-surgical orthopedic management of rheumatoid arthritis. The surgical orthopedic treatment of

this disease, however, is fully as important.

The best clinical end-results in the treatment of rheumatoid arthritis may be obtained through the complete coordination of the efforts of the internist, the physical therapist and the orthopedist.

566 Mt. Prospect Avenue

DISCUSSION

Stella S. Bradford, M.D.—The aim of orthopedic treatment in the care of patients with rheumatoid arthritis is to preserve the integrity of the body structure by maintaining or increasing the flexibility of joints and by increasing muscular strength—using every means at our disposal to accomplish these ends. Patients chosen for treatment in a general hospital should be those who are most likely to be an asset later, or at least, who will not be a burden on the community. The general practitioner cannot so choose. He must, facing the question squarely, do what he can to help each patient reach his norm, or "best possible". The care of the patient with arthritis, incipient or advanced, even by a general practitioner, should be dynamic, whether the patient is in his home or in a nursing home. The doctor should not tolerate having a patient remain in bed just to prevent accidents, if with care he can become ambulatory.

Dr. Kavanaugh is perhaps at his best in his description of rest casts and their uses. He also speaks as "one in authority" in his appreciation of the fact that "general condition" must be considered before local improvement.

His discussion of the prevention of deformities in a bed-patient is masterly. So is that of manipulation under anesthesia, and of skeletal traction.

Every joint in the body, at least once a day, should be given its full range of motion as limited by ankylosis, swelling, or pain. If the condition is very acute, exercise to preserve or promote flexibility should be wholly passive. As the condition becomes less acute, and the patient more skilful, exercise for flexibility can, and should, be done by the patient himself. A patient with arthritis will unconsciously try to save himself pain. He will flex and extend the forearm, for example, but stop short of the point at which there has been pain, even if it no longer exists.

Exercise to improve strength may consist of contraction of muscles with or without motion. A patient supine, in bed, even with fever and elevated sedimentation rate, will suffer no harm by contracting his abdominal muscles, his gluteal muscles, or the extensors and flexors of the thigh or the upper arm, without motion. In doing this there will be no irritation of joints, and the patient will have begun strengthening the large muscles of abdomen and back, upper arm and thigh. Still supine, with his hips and knees flexed, and his feet placed on the bed, by contracting his abdominal and gluteal muscles simultaneously he will continue to strengthen his abdomen and lower back, and will begin to expand his chest. If he precedes this action with a diaphragmatic breath, and does the whole maneuver a gradually-increasing number of times a day, over a long enough period, he will acquire a flexible chest and strong trunk while he is still a bed-patient.

Exercise for the extremities should be carefully prescribed, and should be done, at first, as passive motion; then assisted; and then active. What joints are exercised depends entirely on the condition of the joints. If the shoulder is inflamed, exercise can be given with motion at the elbows and wrists, and vice versa. In the same way, if the knee is inflamed, exercise can be given with flexion and extension at the hip, and the knee straight. If only the hands or the feet are free from inflammation, they only should be given exercise until the larger joints are ready.

As soon as a joint is free of inflammation it should be included in the daily exercise routine, with, of course, very little at first. This daily routine should increase gradually in variety, vigor, and volume of exercise. When a patient is free of symptoms he should have progressed to a half-hour a day of vigorous—but not forced or tense—exercise.

In his paper Dr. Kavanaugh does not distinguish clearly between reconditioning and rehabilitation, though I believe he does so in his thought. Reconditioning refers to all treatment focussed on bringing the physical condition of a patient up to his best possible, and is the job of the physician and physical therapist. Rehabilitation, on the other hand, is the process of fitting him, even handicapped, for life in this world. It teaches him care of himself, adaptation to his family, training for a job, however small, and is the province of the psychiatrist, the occupational therapist, and the job specialist, as well as of the physician. It should not be limited to the ambulatory stage.

The principles involved in teaching exercise to patients with arthritis are as follows: (1)A patient who has been acutely ill is necessarily weak, and should become strong supine, before he attempts to stand. (2) General strength can be acquired by progressive systemic contraction of the large muscles, without joint movement. (3) Specific exercises for joint flexibility should be given for every joint not actively inflamed, and not ankylosed. (4) The effective sequence is from passive motion to assisted motion, and from this to active motion. (5) Only if he has proved his ability to think creatively, in terms of exercise and a patient, should a physical therapist be trusted to prescribe the kind and amount of exercise to be taken by an arthritic. And (6) the person responsible for the functional improvement of an arthritic patient is the doctor in charge of the "non-surgical orthopedic management".

TOXIC REACTION TO STREPTOMYCIN *

Harry Halprin, M.D., F.A.C.P., Franklin Turner, M.D., Eric Davidson, M.D., and Peter Tucci, M.D., Montclair, N. J.

Recently reports have been trickling through the medical literature of unusual reaction in the hematopoetic system to streptomycin. For example, last year, two cases were reported from Paris [1] in which children developed purpura and a dangerous granulocytopenia following streptomycin therapy. One of these children died, presumably as a result of the streptomycin-induced blood dyscrasia. The same report also cites the fact that eosinophilia, from 12 to 36 per cent, was observed in seventeen out of twenty-one patients treated with streptomycin for from five to nine months. This eosophinilia reached its maximum about the third or fourth month of the treatment, and subsided four to six weeks after discontinuation of treatment.

We feel that the following case is a timely addition to the meager collection of such reports.

The patient, a 69 year old female, was admitted to The Mountainside Hospital, complaining of dyspnea, malaise and bilateral chest pain. She had had an upper respiratory infection two weeks earlier and was treated symptomatically for a week. Her only complaint then was backache, until, on the seventh day she took to bed because of the onset of dyspnea and chest pain. Thereafter she was treated with sulfadiazine and daily injections of penicillin.

Physical findings: Temperature was 103.2; pulse was 100, respirations, 20. Examination of the chest revealed dullness in the bases of both lungs, especially over the left. Fine moist rales were audible, particularly in the left lung base posteriorly. Breath sounds were depressed in both bases. Coarse rales were heard in the hilar region bilaterally. The heart was enlarged to the left, but was otherwise normal. Blood pressure was 178/80.

On admission, a chest x-ray suggested a calcified bilateral apical lesion, with acute consolidation of the left base and a tortuous aorta. Another x-ray, taken 15 days later, showed that the lower lung fields were essentially clear with only slight accentuation of the linear markings in the left base. The apical calcifications persisted.

Course. Treatment began with 50,000 units of penicillin every three hours and a grain of sulfadiazine every hour, together with sodium bicarbonate. The temperature began to drop by lysis after the first day, and by the third day, she began to exhibit only a low grade fever which would rise as high as 101 and drop as low as 99.4. Blood culture taken at this time was negative. On the second day after admission, the patient became, at times, euphoric; and at other times exhibited paranoid tendencies. Her speech content was suggestive of mental delusions; she accused the attending staff of "planning operation" on her. This continued and the patient became so noisy and irrational that it was deemed advisable to stop the sulfadiazine on the fourth day. Three days later all signs of psychotic behavior had disappeared. Temperature persisted "low grade" in character with septic rises and falls. She continued to complain of pain in the right chest, most marked on deep inspiration. Cold agglutinin studies were negative, and nose and throat exudate were found to be negative for uncommon pathologic organisms. Urine culture and smear also were negative. Examination on the 20th day revealed that the chest was clear to percussion and auscultation, and yet a low grade temperature persisted. Acid fast organisms were found in the gastric washings, but these were reported as not typical of microbacterium tuberculosis. Gastric washings were reported on the 20th day with the same result. Urine sediment was negative for acid fast bacilli. The white blood count during this time had dropped from 11,100 on the day of admission to 7200 during the second week of hospitalization.

Sedatives in the form of barbiturates, and codeine and aspirin as analgesics were given, but she received no other medication. Because the patient s cough, during the acute stage of her illness was not productive, it was impossible to obtain sputum for examination, although this had been attempted several times. Because of the persistent low grade fever, absence of a leukocytosis and typical chest findings to physical examination, streptomycin was started on the 16th day. No change in the fever occurred, and the blood count on the 19th day revealed: 4050 white cells with 33 per cent polynuclears and 67 per cent lymphocytes. Streptomycin was continued until the 30th day. A blood count reported on that day showed a white blood count of 900 with 3 per cent polynuclears, 1 per cent eosinophiles, 1 per cent basophiles, 89 per cent lymphocytes and 6 mononuclears. Platelet count on the 21st day had been only 74,000. On the 29th day, platelets had dropped to 52,000 with reticulocytes 0.8 per cent. When this granulocytopenia was noted, penicillin and streptomycin were simultaneously discontinued. On the 30th day she received a transfusion of 500 cubic centimeters of citrate of blood. She was placed on crude liver extract, and folic acid (75 milligrams) was given intramuscularly. This was followed by oral folic acid, 60 milligrams a day. By the 30th day, the white blood count had dropped to 800, of which 92 per cent were lymphocytes. The next day her white blood count rose to 1900; but lymphocytosis persisted.

* From the Medical Service, The Mountainside Hospital, Montclair, N. J.

1. In the July 24, 1948 issue of *Presse Medicale* (Paris). Author's name not given.

The red blood count and hemoglobin continued within normal range. At no time did the total red count drop below 4,050,000. Patient received additional transfusions on the 30th, 32nd and 33rd days. By the 35th day, the white blood count was 1,850 with 40 per cent polynuclears and 50 per cent lymphocytes. The last recorded white count made on the 39th day showed 4400 white blood cells of which 41 per cent were polynuclears and 49 per cent lymphocytes. After the white blood count had begun to show a return to normal, the platelets also began to rise from 52,000 to 274,000. The prothrombin time was elevated during this period. Rumpel-Leede capillary fragility test performed during the phase of thrombocytopenia, did not elicit any purpuric phenomena, but petechia (which were not noticed before) were seen on the arms and chest during this period. During the time that the granulocytopenia began to reverse itself toward a more normal picture, the temperature also began to drop by lysis to a normal level. This drop began on the 35th day after it reached a high of 101 and progressively dropped thereafter to a level of 98.6 on the 37th day. A skin test for streptomycin sensitivity performed at this time gave a strong positive reaction in 24 hours. Temperature continued low since that time, reaching only as high as 100 rectal on the 39th day. Chest signs persisted in the right base, with some percussion dulness and occasional fine, moist rales. Patient is up and about and has no symptoms or complaints. At the time of her discharge on the 43rd day her white count was 4500, of these, 47 per cent were polynuclears, 3 per cent were monocytes and 50 per cent were lymphocytes. Platelet count was 176,000.

CONCLUSIONS

Counts of red and white cells, and of blood platelets should be repeated frequently in the course of treatment with streptomycin. Leukopenia and granulopenia should be considered as warning signs. The dose of the drug should be reduced and combined with 10 to 20 milligrams of folic acid per day.

Purpura, abnormal bleeding and unusual pallor are suggestive of an agranulocytic syndrome which may be associated with a myelocytic marrow of the rohr type. Streptomycin should be discontinued and the patient treated with transfusions, penicillin, and folic acid. Eosinophilia does not suggest an unfavorable prognosis.

145 Union Street

FIFTY YEARS AGO

The 1899 issue of the *Transactions of The Medical Society of New Jersey* includes an account of the 80th anniversary session of the Gloucester County Medical Society. One of the speakers was Dr. William B. Atkinson, secretary of the then young American Medical Association. Responding to a toast to the A.M.A., Dr. Atkinson said, in part:

"The American Medical Association comes now with the strength of 8000 members and demands of Congress what it shall have. Now if instead of 8000, it had 80,000 members,* look with what sledge hammer force the A.M.A. could come to Congress and say: 'You must give us the legislation we demand'. Thus, every medical man and woman in the United States wants a National Board of Health. Why don't we get it? Because the A.M.A. has not enough members. Every member of this (Gloucester County Medical Society) organization should join the A.M.A. You get a good *quid pro quo*. You have the Association to back you up in everything. You get every week a Journal—a volume of medical lore. Go to a meeting of the A.M.A.; you will get everything you want in the shape of medical knowledge and medical association. You will have a jolly good time. I think that doctors, laymen and others who were at the Denver (1898) meeting will acknowledge that they had a howling good time and went home satisfied." (From page 372-373 of the 1899 *Transactions).*

*Present membership of the A.M.A. is in excess of 140,000.

18th CENTURY MEDICINE IN NEW JERSEY

"A case of convulsive fits, occasioned by swinging the patient several times round by the feet was brought forward by Dr. Barber and submitted for consideration of the Society. After considerable discussion, it appeared to be the sense of the Society that the whole train of symptoms depended on atonia. Whereupon it was resolved that the proper use of tonic medicines, such as bark and cuprum ammoniacum, with application of cold water by throwing it upon the body when the fit occurs are the remedies to be employed." (From the minutes of a meeting of The Medical Society of New Jersey held in New Brunswick, Nov. 2, 1790, and recorded on page 92 of the 1790 *Transactions.)*

A STITCH IN TIME!

A stitch in time saves nine! Don't lock the barn door *after* the horse has been stolen. An ounce of prevention is worth a pound of cure. And that's just what the Red Feather services do—use prevention to stem the tides of divorce, delinquency, disease and other forces that prey upon people everywhere. Give enough to the Community Chest to *prevent* calamities before they happen!

PSYCHIATRY IN RELATION TO OBSTETRICS *

Lloyd J. Thompson, M.D., Winston-Salem, North Carolina

The most opportune time for the concrete application of, and for education in, mental health principles is when a young couple come to the doctor for confirmation of that first pregnancy. Certainly this is true for the health of coming generations.

When pregnancy is suspected, there are many attitudes to be considered. Why don't women come earlier for prenatal care? Sometimes the husband blocks it because he doesn't want to be blamed for not "taking care"; because he wants his wife to continue working until the car is paid for; because he doesn't want his wife exposed to examination by some young doctor or because he is too immature to assume the role of father, knowing nothing about it; afraid of children or afraid of sharing his wife's love with another one.

Frequently, it is the wife who delays prenatal care for one or more of the above reasons. Then, too, it may be her own modesty; fear of being hurt; inexperience with doctors and hospitals; fear of delivery or even a fear that it may not be true that leads to postponement. Some women fear the confirmation of the fact that before long they must walk down the street announcing to the world that they have had sexual intercourse. At any rate, most of the delay in coming under prenatal care can be attributed to resistances, superstitions, ignorance and other psychologic factors. How often does the doctor become aware of these factors and deal with them adequately during that first examination? Sometimes a personal talk might be better than the routine vaginal examinations, measurements, and laboratory studies during that first visit.

These remarks bring up that important question about the planned or unplanned pregnancy, be it the first, third, fifth or ninth. In other words, is this child-to-be wanted or unwanted? In my experience it is rarely 100 per cent one way or the other during all the nine months of pregnancy; and, of course, this attitude involves a man and a woman and perhaps some in-laws. How many doctors who deliver babies or expectant mothers and expectant fathers take this attitude into account and try to do anything about it? The unwanted child has a strike or two called against her before coming to the plate on the delivery table. So many women who wished for or attempted abortion become those oversolicitous mothers, guilty of maternal overprotection, in compensation for or expiation of guilt feelings.

About one-third of women who do not become pregnant have no obvious physical reason for a childless state. Many are unconsciously avoiding conception. I have records of several women who became pregnant after discussing freely their resistances and after making a better sexual adjustment.

Abortion, miscarriage and premature delivery are recognized as accompaniments of fire, war, bombardments, and other emotional traumata. Yet, quite recently, we heard about the woman who climbed off the delivery table during a hospital fire; kicked the screen off; climbed down a fire escape and went home to give birth to her child on time and in some measure of composure. Untimely birth has been known to happen when the attending obstetrician's vacation time came during the calculated time of delivery. Regardless of hormonal disturbances, it is sometimes found that psychologic attitudes have a role in the production of abortion, miscarriage and premature delivery. The forecast date of delivery is a hazard.

A little further in pregnancy one is usually confronted in some measure with the problem of morning nausea and vomiting or hyperemesis gravidarum. For years this has been taken for granted and passed down from mother to mother. Even fathers have it. The physiologic bases for this as proposed by numerous writers can and have filled a book. Beck explains it on the basis of the rapid de-

* Abstracted from a paper read, by invitation, to the section on neuropsychiatry of The Medical Society of New Jersey at its Annual Meeting, April 25, 1949. Dr. Thompson is professor of psychiatry at the Bowman-Gray School of Medicine.

velopment of the embryo in the first two months. During this rapid expansion of the site of implantation with destruction of maternal tissues there are waste materials from destruction of decidual elements with buds of trophoblasts and other metabolic products that may well have toxic influences.

On the other hand, the factors of suggestion, emotional immaturity and rejection of the pregnancy in a symbolic manner cannot be overlooked. Robertson has some very convincing statistics that indicate that hyperemesis gravidarum is closely related to mother attachment and poor sexual adjustment, all of which means emotional immaturity. Bertling has recorded that there is an absolute parallelism between dysmenorrhea and nausea and vomiting of pregnancy in 68.5 per cent of cases. The conclusion is drawn from this "that there is some common factor between dysmenorrhea and nausea and vomiting of pregnancy that could very well be psychogenic, since there is no obvious common anatomic or physiologic relationship known".

On the basis of this possibility of functional with accompanying physiologic factors it is suggested that insulin *sub*-shock therapy plus psychotherapy (as used by psychiatrists in anxiety and depressive reactions) may be of considerable value in hyperemesis gravidarum.

From some early age in the life of a girl until after delivery there is very likely to be definite fears about the birth process. This is not to say that such fears are entirely ungrounded nor that here is no discomfort in childbirth. However, there is so much anxiety added through handed-down tales; through hearing of only the complicated cases; through use of words such as "labor" and "labor pains"; through ignorance and lack of adequate preparation (immaturity!) that a wide latitude is left for help in this area of fear of childbirth.

This fear, increasing with the size of the abdomen, can have various effects. Anxiety increases adrenal activity, causes digestive disturbances, increases the heart rate and perhaps leads to hypertension. The relation of this to the toxemias of pregnancy is not clear. Also, anxiety with its feeling of uneasiness and a craving for release may lead to constant nibbling and finally to serious gain in weight. Proper diet during pregnancy reduces the chance of edema, anemia, toxicity and even lowers the difficulty of birth and the infant mortality rate.

The importance of the fear factor in the birth process itself has been brought to our attention more than once in the past few years, especially through the writings of Dr. Grantly Dick Read of London. Recognition of this is not new and many obstetricians for years have tried to dispel it. However, credit must go to Dr. Read for paving the way through definite technics. Everyone will agree that, in spite of the improved efficiency of anesthetics in the past few years, it remains better for the mother and the baby to have as little anesthetic as possible.

Many will not agree exactly with the physiologic explanations given by Dr. Read. He points out that the inner circular muscular layer of the uterus acts very much as a sphincter and is innervated by the sympathetic nervous system. He likens this mechanism to that of the bladder. This internal sphincter is opposed by the action of longitudinal or detrusor muscles which are innervated by the parasympathetic nervous system. When these two opposing muscular structures act at the same time, then there is resulting pain just as there would be in the bladder or in the rectum. Physiologic studies have shown that, in states of fear, there is a general sympathetic nervous system discharge. In addition to this it is recognized that fear can cause tension, and we are well aware of the occipital headaches that can come from tension.

The woman going into childbirth can be likened to the soldier going into battle. If he has been fully trained and fully enlightened; if he has faith in his immediate officers and has good morale and confidence, his fear will be at a low level. On the other hand, if he is unprepared; does not understand the mechanisms he is using, and does not have faith in his officers, his morale is likely to be low and his fear at a high level. The analogy to childbirth is not too far fetched.

Other situations relating to pregnancy and

childbirth should be mentioned. One is the question of the rooming-in plan with which obstetricians must be concerned. There are many arguments on both sides of this question, but where the plan has been tried with an open mind the advantages seem to outweigh the disadvantages.

Another topic pertains to the question of sexual adjustment. At least one-fourth of married women are frigid and another one-fourth are not making a very good sexual adjustment. While the woman is under the care of an obstetrician (during pregnancy) is an ideal time to see what can be done about sexual maladjustments. This is a time when the subject can be brought up naturally, and it is a time when women are anxious for help along this line if there is some difficulty.

Many obstetricians assert that they do not have time to go into all these problems of emotional adjustment, and certainly there is truth in this attitude. However, in the end it should pay definite dividends. As a partial substitute for what the obstetrician can do along this line, it is suggested that all primiparae should have the opportunity of attending mothers' classes. These mothers' classes should include far more than just the physical hygiene. In our community, for instance, we conduct courses for expectant mothers who are in their first pregnancy. About one-half of the time is devoted to the physical care and explanation of physiology and the birth process, while the other half of the time is spent on discussion of emotional problems and adjustment in marriage and to the coming child.

I want to predict that, in the future, all medical centers will have in the prenatal and well-baby clinics a close coordination with psychiatry and that these will become training centers for doctors, nurses, social workers, and others who will work in more remote areas dealing with the prenatal period of life, as well as the neonatal period.

"THE PROPHETS OF MEDICAL DOOM WILL be hard put to maintain their dire predictions in the face of recent statistics on venereal disease issued by the United States Public Health Service. According to the Surgeon General, figures reveal only a seventh as much syphilis and a third as much gonorrhea among men examined for the new U. S. Army as in the World War.

"Analysis of the results confirms what the medical profession has repeatedly pointed out. Syphilis, like most other diseases, flourishes in communities where economic conditions are unstable. As soon as these factors are corrected the incidence of venereal and other diseases drops and health improves.

"Advocates of socialized medicine, who insist that poverty follows disease, are reversing the etiological relationship. It is more generally true that poverty breeds illness than the reverse.—N. Y. Medical Week.

WE SOMETIMES BECOME VERTIGINOUS trying to follow the social bookkeeping involved in measuring the adequacy of medical care. For instance, if smallpox breaks out in a community of under-vaccinated children, that is charged as an inadequacy of the medical profession, or at least a failure of the profession to pursue public prophylactic policies with sufficient intensity. And if a county or state has a sky-rocketing tuberculosis rate, this too is charged against the doctors in the esoteric books of the social statistician. Yet the factors responsible for the upping of the tuberculosis rate certainly constitute no indictment of the doctors. Perhaps the smallpox epidemic is chargeable to the medical profession, though even here the laxity would seem to be with the school and health departments. But a boost in tuberculous infection usually means inadequate housing, slum living, contaminated milk or improper clothing. And the correction of these evils surely falls within the function of the government's social agencies, not within the jurisdiction of the doctors."

WHO'S GOT TROUBLES?

Who's got troubles? Everybody's got troubles! But some folks have *more* troubles than they can handle. Many people with personal or family problems are helped by RED FEATHER family services where they receive skilled counsel and guidance. And *you* help make it possible when you make your pledge through the Community Chest.

TENDON SHEATH INVOLVEMENT IN RHEUMATIC DISEASES

IRVING L. SPERLING, M.D., Newark, N. J.

Tendon sheath inflammation, tenosynovitis or tendovaginitis, is well known to rheumatologists as a common accompaniment of certain rheumatic conditions, particularly rheumatoid arthritis. In spite of this, textbooks and the literature touch on this so briefly, that it is a commonly overlooked feature of these diseases. With this in mind an attempt will be made here to stress these facts and to point out their diagnostic and prognostic importance.

To classify the problem, a classification of tendon-sheath lesions is presented below. Although this is not complete, it will serve to interrelate the various conditions affecting tendon sheaths and to integrate the rheumatic conditions.

It will be seen from this classification that the primary rheumatic conditions associated with tendovaginitis are gout and the chronic non-specific infectious group (rheumatoid arthritis, palindromic rheumatism, rheumatic polytendonitis).

CHRONIC NON-SPECIFIC INFECTIOUS TYPES

1. *Rheumatoid arthritis:* This is a systemic disease with chronic progressive joint involvement. In addition to the articular lesions there are extra-articular soft-tissue lesions, such as subcutaneous nodules and tendovaginitis. It is usually a polyarticular arthritis, the small joints being involved more commonly. Here we find the fusiform swelling which is so typical of this condition. It is about these joints, primarily the fingers, hand and wrist (especially on the dorsum) that we usually find the tendovaginitis. However, it may also occur about the elbows and dorsum of the foot.

The tendovaginitis usually consists of cystic, painful swellings, with a fluid-filled consistency. They are somewhat movable and unattached to the skin. However, they are fixed to the underlying tendon structures. They vary from minute lesions to those several inches in diameter depending on location. They may be multiple and are frequently bilateral. They come and go with exacerbations and remissions of the disease and are a good indication of the presence of an active stage of the arthritis. However, they may remain as a chronic process with long continued activity. Their exact incidence is unknown but they do occur in the majority of cases. Pathologically they exhibit a non-specific inflammation of the tendon sheath with excess fluid in the tendovaginal space. They require no specific treatment except that of the rheumatoid process and they subside with remissions leaving no permanent effects.

Contrasting the tendovaginitis one must keep in mind the symptoms produced by rheumatic infections at the attachment of tendons and muscles. Kahlmeter[1] pointed this out noting what he called "polytendonitis" as the syndrome due to the inflammation of the tendon attachments. This probably fits into the classification of a fibrositis which accompanies rheumatoid arthritis and accounts for much of its peri-articular symptomatology. This, however, is chiefly a symptom complex and does not exhibit gross structural abnormalities.

Subcutaneous nodules must also be differentiated from tendovaginitis. The nodules are distinct pathologically, and are commonly found over the elbow, spine, occiput or extensor surfaces. They may occur in similar locations, as along the tendons of the fingers and toes.[2] However, they are rarely cystic and are painless. Finally, the overlying skin is freely movable.

A ganglion is a cystic swelling containing thick mucoid material occurring along tendon sheaths or joint capsules. It is commonest over the dorsum of the wrist. It is probably distinct from the tendon sheath, but may be attached to its surface. The actual etiology is unknown but it may be due to cystic degeneration of connective tissue near a tendon or joint, or may be a degenerative cyst of a tendon. A ganglion may be confused with tendovaginitis but the former is usually single, in a typical lo-

1. Kahlmeter, George: Lancet, 2:1338 (December 1933).
2. Comroe, B. I.: *Arthritis and Allied Conditions.* 3d Edition. Philadelphia. Lea and Febiger (1944).

cation, non-tender and has a prolonged course. However, occasionally the differentiation may only be made surgically.

2. *Palindromic rheumatism:* Hench and Rosenberg [3] described a recurring disease of joints and adjacent tissues characterized by multiple afebrile attacks of acute arthritis and peri-arthritis. It appears suddenly, lasts a few hours or days, and leaves no residuals. During the acute phase the tendon sheaths may be similarly involved [2] with a non-specific inflammatory process with excess fluid in the tendovaginal space. This returns to normal with subsidence of the attack.

3. *Rheumatic polytendovaginitis:* Baumgartner [4] reported several cases of this vague condition and poined out that the rheumatic state may occur with only tendon sheath inflammation assuming dominance. He reviewed the literature and cited several cases in recent years. I have had one case under personal observation, and this was characterized by painless, symmetrical nodules occurring in the region of tendon sheaths of the hands or feet. They run a variable course, as do all rheumatic diseases, and may be associated with subcutaneous nodules and other rheumatic stigmata. In 1925, Roseno [5] reported two cases of acute tendovaginitis which he ascribed to a "rheumatic" state. These were of a serous nature and responded to salicylate therapy.

These three disorders may be different stages of a rheumatic process with the serous stage an early acute phase, and the nodular phase, the chronic proliferative stage. However, definite proof of this relationship will require further studies including muscle biopsies.

GOUT

The clinical description of gout is well known to most physicians. However, it should be pointed out that there are many variations from the typical picture, and that involvement of small and peripheral joints is more common. Big toe involvement is not always present. The pathologic process is due to urate deposits, usually in and about joints. However, the deposits do occur in synovia, ligaments and other supporting tissues such as tendons. In the acute phase we see a tendonitis from urate deposits but this is usually part of the general acute inflammation and is not as distinct as the tendovaginitis of rheumatoid arthritis. However, occasionally they may be similar.

It is in the chronic, late stage that we find the characteristic tophi in about fifty per cent of all gout cases. These deposits of urates occur chiefly about the helices of the ear, the knuckles, hands and toes. Urates are also deposited in the tendons of the fingers, the patella and Achilles tendon. They are painless and may be mistaken for subcutaneous nodules. Occasionally, these ulcerate and if opened, one finds typical urate crystals about the tendons. These are easily demonstrated microscopically.

ASSOCIATED CONDITIONS

The various other tendon involvements should be mentioned briefly because they may be of importance from a differential diagnostic standpoint.

1. *Gonorrheal tenosynovitis:* This occurs in association with arthritis more commonly than any other arthritides. However, today gonorrheal arthritis is fairly uncommon and so in turn is tenosynovitis. This is found chiefly in the extensor tendons of the hands and wrists and is an acute, usually purulent infection. It is easily differentiated by its characteristics and clinical course.

2. *Tuberculous tenosynovitis:* This is a rare condition [2] with painless, slow involvement of the tendon sheath, mostly on the volar surface of the hand. In the late stages one finds rice bodies in the sheaths. This too is easily diagnosed.

3. *Chronic non-specific tenosynovitis:* These are chiefly traumatic conditions and primarily involve single tendons such as "trigger finger" and "De Quervain's disease". They are due to an injury to the tendon sheath with secondary fibrosis. These conditions are amply described in the literature and are non-rheumatic.

4. *Tumors:* Tumors of tendon sheaths arise from the synovial cell which is mesenchymal. This is a basic cell and may revert to various forms as fibroblasts, cartilage, etc. Therefore, one finds the large variety of tumors above listed. These cause little diagnostic difficulty, although multiple xanthomatous tumors may resemble tendovaginitis very closely. However, the course and pathology serve to differentiate them.

SUMMARY

1. The relative frequency and the charac-

3. Hench, P. S., and Rosenberg, E. F.: Archives of Internal Medicine, 73:293 (1944).
4. Baumgartner, Wener: Schweitzer Medizinische Wochenschrift, 76:809 (1946).
5. Roseno, A.: Klinische Wochenschrift (Berlin) 4:625 (1925). Abstracted in the Journal of The American Medical Association, 84:1705 (1925).

teristics of tendovaginitis in rheumatic diseases particularly rheumatoid arthritis are emphasized.

2. The classification of these conditions in relation to all tendon diseases is indicated.

3. The diagnostic and prognostic value of these conditions requires more stress and general attention.

CLASSIFICATION OF TENDON DISEASES

I. Traumatic disorders
II. Congenital disorders
III. Tenosynovitis
  A. Acute infectious
    1. Suppurative pyogens
    2. Gonorrheal
  B. Acute non-infectious
    1. Gout
    2. Trauma (strain, sprain, rupture)
  C. Chronic specific infectious
    1. Tuberculosis
    2. Syphilis
  D. Chronic non-specific infectious
    1. Rheumatoid Arthritis
    2. Palindromic Rheumatism
    3. Polytendonitis—Rheumatica
  E. Chronic non-specific
    1. Crepitating
    2. Non-crepitating
    3. Stenosing
IV. Tumors
  A. Benign
    (Lipomo, neuro-fibroma, giant xanthoma, osteochondroma, angiomas)
  B. Malignant
    (Fibro-sarcoma, chondro-sarcoma, synovioma)

167 Osborne Terrace

18th CENTURY MEDICINE IN NEW JERSEY

Dr. Lewis Dunham was elected president of The Medical Society of New Jersey in 1791. His presidential dissertation was "On the Beneficial Effects of Bathing" and these extracts from that paper are taken from pages 98 to 109 of the 1792 *Transactions* of The Medical Society of New Jersey.

"Though bathing has been much neglected in the last age, yet it was the practice of the Jews and Romans, not only as a cure but also for cleanliness and pleasure. I make no doubt but in a little time, bathing will be as much in esteem among us as heretofore among the ancients. Bathing will always act the part of a diuretic and plunging over the head in cold water will do more in the cure of melancholic habits (or even the madness occasioned by the bite of a mad dog) than any other medicine. There is nothing more adapted to the cure of frigidity than a cold bath. It will contribute its share to the cure of gonorrhea and fluor albus.*

"Yet the abuse of bathing is prejudicial as may often be observed in the summer time from the countenance and complaints of boys who bathe often. They are generally of a pale and ghastly countenance with ulcerated heads occasioned by deprivation of the body juices, which often ends in dropsy. A body sunk in water sustains a much greater weight than in air, so that all the consequents of greater pressure happen upon bathing. Blood is thus forced upon the viscera. For this reason, it is never safe for those to bathe who have weak bowels. One that goes into a cold bath, unless he plunges his head, will be subject to headache. The reason is obvious: blood will run in plenty to the head. From bathing, the water enters the body and mixes itself with the blood. Water will force itself through the skins of animals. The water of the bath will mix itself with the humors of the body, so that there is nothing so wonderful in bathing but what may be accounted for from the properties of the water."

* Fluor albus is an old term for leukorrhea.

TALK ON INTESTINAL OBSTRUCTION

On Thursday evening, October 20, at 8:30 p. m., Dr. Phillip Thorek, Associate Professor of Surgery, Cook County Graduate School of Medicine, will talk on Intestinal Obstruction to the combined meeting of the Academy of Medicine and its General Practice Section at the Academy of Medicine, 91 Lincoln Park, Newark.

POST-SPINAL HEADACHE

TREATMENT WITH DESOXYCORTICOSTERONE ACETATE *

Nathan Asbell, M.D., Camden, N. J.

Corning [1] in 1885 was the first to conceive the idea of spinal anesthesia. In his frog experiments he gave intrathecal injections, but he hesitated to test this on the human subject. Instead, he injected cocaine between the spinous processes and produced a partial paravertebral anesthesia. Von Quincke,[2] in 1891, introduced lumbar puncture and the first spinal anesthesia was given by Bier [3] in 1899. In that year, Tait and Caglieri [4] performed the first operation under spinal anesthesia, using cocaine as the agent. Soon, this method was temporarily abandoned due to the mortality of cocaine. The discovery of stovaine by Fournier in 1903 and of novocaine by Einhorn in 1904 led to the resumption of spinal anesthesia. From that time, the practice has become increasingly more widespread. In 1928, Pitkin [5] introduced his small bore, short bevel needle and "spinocaine", and since then spinal anesthesia has become universally accepted.

Since the early days of Von Quincke, post-spinal anesthesia headache has been recognized as a complication of lumbar puncture. Much research has been performed to determine its etiology and cure. However, it still remains one of the few drawbacks to the use of spinal anesthesia.

ETIOLOGY

The consensus is that the cause is a leakage of spinal fluid from the dural puncture. Sicard [6] in 1902 first assumed that the headache was due to a leakage through the hole in the dura. Dana [7] felt that it was due to irritation of dural fibres of the fifth and occipital nerves caused by the removal of the "water pad" of the brain. This permitted the brain to rest on bone, and, at the same time, produced an inhibition of the activity of the choroid plexus. Lott [8] states that the intensity and duration of a post-puncture headache are in direct proportion to the degree of intra-cranial pressure. MacRobert [9] attributes the headache to a loss of fluid, which in turn produces a loss of the supporting cushion of the brain, thus permitting pressure of the brain against the basilar venous sinuses and a venous congestion due to the rise of venous pressure. This, he postulates, occurs only when the arachnoid membrane is pulled through the hole made in the dura by the needle. Alpers [10] feels that the predisposing cause of the reaction is the marked fall in spinal fluid pressure, with leakage through the puncture wound maintaining the low pressure. In support of this hypothesis, Nelson [11] reported that in two cases, he found the spinal fluid pressure to be 13 and 15 millimeters, respectively, and after the removal of six cubic centimeters of fluid, the pressure dropped to 9.5 and 10 millimeters. The next day, these two patients had headaches. The spinal pressure at the time of the headaches was 2 and 2.5 millimeters.

Another theory is that the symptoms are the result of increased intracranial tension. Leakage or cerebrospinal fluid from the dural puncture is greatest during the first twelve to twenty-four hours, and stimulates the choroid plexus to secrete an increased amount of fluid. Since this secretion does not cease immediately after the puncture has become sealed, a condition of increased intracranial pressure arises. Labat's [12] claim that the aspiration of 20 cubic centimeters of cerebrospinal fluid will always relieve the headache seems to confirm this theory.

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* Submitted and accepted as a thesis towards the fulfillment of requirements for the degree of M. Sc. (Surg.) by the University of Pennsylvania.

1. Corning, J.: New York Journ. of Med., 42:483 (October 1885).
2. Von Quincke: September 1891 (quoted by H. W. Allen, Brit. Med. Jour., 2:349, August 1934).
3. Bier, August: "Deutsche Ztschr" fur Chir., 51:361 (April 1899).
4. Tait, D. and Caglieri, G.: Trans. Med. Soc. Calif. Abst. J.A.M.A., 35:6 (June 10, 1900).
5. Pitkin, G. P.: Am. Journ. Surg., 5:537 (June 1928).
6. Sicard: *Le Liquide Cephalorachidien*. Paris (1902).
7. Dana, C. L.: Journal of the American Medical Association, 68:1017 (December 1917).
8. Lott, Y. C.: Medical Record, 92:717 (November 1917).
9. MacRobert, R. G.: Journal of The American Medical Association, 70:1350 (June 1918).
10. Alpers, B. J.: Archives of Neurology and Psychiatry, 14:806 (December 1925).
11. Nelson, M. O.: Arch. Derm. and Syphil., 21:615 (June 1930).
12. Labat: *Regional Anesthesia*. (W. B. Saunders & Co.), Pp. 517 (1930).

The latent period before headache, together with an occasionally observed increase of cells in the fluid, has led some writers [13] to believe that an aseptic meningitis at the puncture point is the cause of the headache. Watson [14] believes that psychoneurosis is an additional factor in the production of post-spinal headache.

EXPERIMENTAL EVIDENCE

Baruch,[15] in an attempt to determine whether much, if any, fluid leaked out through the puncture dura, did lumbar punctures but removed no spinal fluid. Instead, he injected into the sub-arachnoid space, three cubic centimeters of 2 per cent indigo carmine solution. After allowing the needle to remain in place for 63 minutes, he was unable to obtain any trace of the dye in the urine. He then removed the needle and in eight minutes, indigo carmine was found in the urine. He, therefore, concluded that there must be leakage through the puncture wound. Stecker [16] repeated Baruch's work and substantiated it.

Green [17] suspended spinal cords and filled the duras with water. He then punctured the duras, using both large and small bore needles. He found that the large needles produced large, irregular holes while the small needles merely separated the fibres and produced no leakage.

Kennedy [18] performed laminectomy on the lower thoracic vertebrae under chloroform anesthesia on a calf two months old, reproducing as far as possible the technic as followed in the human. He injected a dye and observed that immediately after the withdrawal of the needle, there was a sharp gush of fluid. This ceased very quickly because of the fine needle, but at the end of half an hour, in two out of five cases, the puncture was still oozing.

Heldt and Maloney [19] concluded that negative pressure existed in the epidural space comparable to the negative pressure in the pleural spaces. This, they felt, exerts a pull of the dural flap and tends to keep it open. This was confirmed by Sheppe.[20] These observations seem to verify MacRobert's theory of avulsion of a dural flap.

However, Babcock [21, 22] and Harrison [23] are of the opinion that post-spinal headache is not produced by leakage of the spinal fluid alone but that some irritant in the anesthetic agent or instruments is of paramount importance.

It is generally accepted that age, sex, type of operation, or amount of anesthetic agent are not vital factors.

PREVENTION

There can be no question of the importance of preventing a post-spinal headache if possible. Hoyt [24] advocated the use of a double needle. Nelson [11] inserted a piece of catgut in the puncture wound and reported a distinct fall in the incidence of headache. Heldt and Whitehead,[25] however, asserted that this produced a "catgut reaction" which was nearly as severe as the headache.

Harrison [23] reports a lowering of the incidence with the use of a special non-irritating anesthetic agent. Babcock [22] uses distilled water in the sterilization of his spinal syringe and needles and states that he experiences very few post-spinal headaches.

Sheppe [20] advocates halting the needle in the epidural space during each puncture and allowing it to remain *in situ* with the stylet removed both before and after the anesthetic agent is inserted. Thus, air enters the epidural space and serves as a "cushion" against the leakage of fluid from the dural sac and prevents avulsion of the tear in the dura.

One of the most important steps to prevent post-spinal headaches is good technic. This includes a fine, sharp needle so that only a small hole may be produced. This needle should have a short bevel and be inserted with the bevel parallel to the long axis of the body. The fibres of the dura run in this direction and consequently they will be separated and not cut crosswise. No gap will be produced which can remain open, or flap made which can be avulsed. The loud "pop" as the needle cuts across the fibres of the dura is seldom heard when good technic prevails.[26] For withdrawal of the needle, the stylet should be re-introduced and the needle with stylet withdrawn slowly. This circumvents most of the disadvantages that investigations point out, for to

13. Le Drew, Frederick, and Shube, Purcell G.: New England Journ. Med., 211:537 (September 20, 1934).
14. Watson, Thomas P.: Canadian Medical Association Journal, 49:120 (August 1943).
15. Baruch, M.: Berliner Klinische Wochenschrift, 57:298 (February 1920).
16. Stecker, H.: Zeitschrift fur des Gesamte Neurologie, 91:114 (March 1924).
17. Green, H. M.: Northwestern Medicine, 22:240 (February 1923).
18. Kennedy, A. J.: Medical Journal of Australia, 112:40 (January 1932).
19. Heldt, T. J., and Maloney, J. C.: Am. J. Med. Science, 175:371 (1928).
20. Sheppe, Wm. M.: Am. J. Med. Science, 188:247 (1934).
21. Babcock, Wayne: Surgery, Gynecology & Obstetrics, 59:95 (July 1934).
22. Babcock, Wayne: Personal communication to the author.
23. Harrison, P. W.: Archives of Surgery, 32:99 (January 1936).
24. Hoyt, H.: British Medical Journal, 2:349 (August 25, 1934).
25. Heldt, T. J., and Whitehead, L. S.: American Journal of Psychiatry, 93:639 (1936).
26. Waner, W. L.: Illinois Med. Journ., 67:45 (January 1935).

quote Babcock:[21] "No solution or technical innovation has displaced the necessity for an accurate technic".

SYMPTOMATOLOGY

A post-spinal headache has characteristics which distinguish it from all other headaches. It falls in the "hypotension" category.[27] The headache commences commonly in the occipital, and infrequently in the frontal region, tending to become generalized. Prominent features are its continuity so long as the patient sits up, and its relief when he lies down. The intensity is variable. It is seldom so mild that the patient can remain in the upright position; and it can be so severe as to keep the patient recumbent for several weeks suffering the most excruciating pain.

The patient also complains of pain and stiffness in the upper cervical region. When this is the only complaint, it closely parallels all the distinguishing characteristics of post-spinal headache.

Nausea and vomiting occasionally accompany the headache.

Many series of cases have been reported. The incidence, differing with almost each investigator's report is illustrated in the chart.

CHART I

Modified from Jennings and Karabin[28]

Name	*Number of Cases*	*Incidence*
Jennings-Karabin	500	30.6%
King	1500	7.3%
Babcock	5000	21.0%
Koster-Weintrob	6000	10.0%
Broglio	1146	12.5%
Campbell	410	3.0%
Wells	557	2.5%
Overholt-Muller	544	4.0%
Stein-Tovell	150	6.6%
Asbell	495	5.5%

The author has made an analysis of the incidence and ratio of post-puncture headaches correlated with the type of operation, age and sex of patient, duration of the procedure and amount of the drug used. No significant correlations were found.†

TREATMENT

Many attempts have been made to relieve post-spinal headache. Epidural,[29] intrathecal[30] and intravenous[23] injections have been used. Treatment with pituitary extract,[10, 31, 32] vitamin B_1,[33] ergotamine tartrate,[34] and nicotinic acid, are a few of the medicaments used. All have given good results. Indeed, recumbency alone will give relief of the headache. However, modern post-operative care frequently demands that the patient be out of bed as soon as possible. An agent which will allow patients to be ambulatory as soon as the surgeon desires would be a valuable asset. The search for such an agent led to the use of desoxycorticosterone acetate.‡

A search of the literature fails to reveal any studies completed on the effect of desoxycorticosterone acetate on spinal fluid pressure. It is a synthetic drug, the ester of the cortical steroid, desoxycorticosterone. The latter is the most potent of the isolated cortical hormones in the conservation of water and sodium.[35] By raising the concentration of the serum sodium, it produces an increase of plasma and the extracellular fluid and thereby may produce an elevation of spinal fluid pressure.[36]

Aside from the vital "hormone", adrenal cortex is believed to contain a "pressor principle" which raises the blood pressure in most human subjects.[37] Since the normal environment of the subdural space is disturbed by the spinal puncture and subsequent leakage, this pressor principle, on a homeostatic basis, may be a factor in normalizing the spinal fluid pressure.[38]

Apparently, there is a reciprocal relationship between anterior pituitary and the adrenal cortex. This may be responsible for the stimulation of the choroid plexus to increased produc-

27. Riddoch, George: Lancet, 2:1107 (November 11, 1933).
28. Jennings, W. M.: American Journal of Surgery, 46:317 (August 1939).
29. Leger, L.: Presse Med., 53:124 (March 10, 1945).
30. Margottini, M.: Policlinico, 44:1385 (July 1937).
31. Solomons, H. C.: Journal of the American Medical Association, 82:1512 (1924).
32. Weed, L. H., and Cushing, H.: Am. J. Physiol., 36:77 (1915).
33. Wanstein, B.: Klinische Wochenschrift, 20:1149 (November 1941).
34. Guttman, Samuel A.: Archives of Neurology and Psychiatry, 49:556 (March 1943).
35. Sollmann, Torald: *Manual of Pharmacology*. 6th Edition, 1942. Pp. 513 (W. B. Saunders & Co.)
36. Goodman, S., and Gilman, A.: *The Pharmacological Basis of Therapeutics*. Pp. 1234 (MacMillan & Co.)
37. MacLeod: *Physiology in Modern Medicine*. 9th Edition (1941). Pp. 1013 (C. V. Mosby Co.)
38. Cannon, W. B.: Physiol. Review, 9:399 (1929).

† This tabulation was included in the author's typewritten thesis, and further data on it may be obtained by communicating directly with Dr. Asbell.—Editor.

‡ Kindly supplied by the Schering Corporation under the trade name of *Cortate*.

tion, as reported by Weed and Cushing.[32] Because of these facts, it was decided that desoxycorticosterone acetate was worthy of trial in the treatment of post-spinal headache.

Twenty-five consecutive cases were selected for treatment. These were all surgical cases, with one notable exception: this was a post-natal case. The criterion of selection was that the patient had a typical syndrome of post-spinal headache, the important factor being a headache which is worse on assuming the erect position and relieved by recumbency. Many cases of headache which did not have this exact syndrome were excluded from this study.

Five milligrams of desoxycorticosterone acetate dissolved in a cubic centimeter of sesame oil used intramuscularly was the standard unit. The dosage was governed by the behavior pattern established. Soon after desoxycorticosterone acetate was initiated it was observed that relief of the headache occurred in one-half to one hour. This relief usually remained in effect the rest of that day. On arising the next day, the patient experienced the headache again. Another unit was given and the same relief obtained. This procedure was then continued until permanent relief from the headache was established. It was found that permanent relief usually occurred in three days. Occasionally, permanent relief was obtained after a single unit (5 milligrams) of desoxycorticosterone acetate, but sometimes daily doses for four days were necessary. Rarely, five milligrams were not sufficient to relieve the headache for that entire day, and a supplementary dose was given. The procedure now is to order five milligrams of desoxycorticosterone acetate, to be given on three successive days, beginning with the day of onset of the headache, a supplementary dose to be given if necessary.

Results were very satisfactory. There were no side reactions in the use of the drug. Of the twenty-five cases, twenty-three obtained permanent relief; an incidence of 92 per cent. In two cases that did not respond, one reported that she noticed some "lumps" at the site of the injections a few days after they were given. This probably represented an extrusion of the drug from the muscular tissue into the subcutaneous fat and one questions how much, if any, of the drug was absorbed. The other was the post-natal patient.

Twenty-three of the twenty-five patients who were treated were able to sit up and be out of bed with complete freedom from headache. This was possible within one hour following the first injection. Not only was early ambulation possible in these twenty-three cases, but their hospital stay thereby was shortened and morbidity lowered.

CONCLUSIONS

1. The history and theories of the cause of post-spinal headache have been reviewed.

2. Twenty-three of twenty-five patients (92 per cent) with post-spinal headache secured rapid relief following the use of five milligrams of desoxycorticosterone acetate ‡ injected daily for a period of one to four days. Early ambulation was possible, prolonged hospitalization avoided.

3. No side effects attributable to the drug were noted.

4. It is recognized that a small series such as this cannot be regarded as definitive. The results, however, were encouraging and it is planned to extend this series.

326 Cooper Street

‡ Kindly supplied by the Schering Corporation under the trade name of *Cortate*.

THE NEW JERSEY ALLERGY SOCIETY

At a recent meeting of the New Jersey Allergy Society the following officers were elected for 1949-50: President—Ralph Alford, Montclair; Vice-President—Clifford Weston, Glen Ridge; Secretary—William Greifinger, Newark; and Treasurer—Frank Rosen, Newark. Executive Board—Louis Byck, Newark; Joseph Skwirsky, Newark; Edwin Seidmon, Plainfield; William Nevius, East Orange; and Nathan Schaffer, East Orange.

CONVALESCENT CARE OF RHEUMATIC FEVER IN THE HOME *

A. D. Dennison, Jr., M.D., Maplewood, N. J.

Someone has aptly stated "It is the squeaky wheel that gets the grease"; and we who are interested in rheumatic fever have not been "squeaking" enough. In this area, rheumatic fever represents a vital and challenging problem with elements of insidiousness and a tendency to lull the public into slumber. Rheumatic fever and its problems have simply not been brought vividly into public awareness. This subtlety of this disease may be briefly demonstrated by a recent patient who complained of inability to gain weight and of fatigue. Only salient point was a family history of rheumatic fever. However, physical examination brought forth the overwhelming fact that this young man, unknown to himself and his family, had advanced to the stage of extensive valvular disease, involving both the aortic and mitral valves.

The subject may be divided into a statistical problem, a physical problem and a psychologic problem.

Some of the *statistical* facts are:

1. In the United States, rheumatic heart disease affects more than one million persons.
2. It accounts for more than one-third of the crippled hearts in adult life.
3. In children from five through nineteen years, rheumatic heart disease (active and inactive) is the number one cause of death.
4. It causes 40,000 deaths each year at an average age of thirty years.
5. It outstrips diphtheria, whooping cough, and infantile paralysis as a cause of death in children.
6. It disables thousands more than it kills.

Under the *physical* aspects of the problem, is one salient fact: the care is very prolonged and the facilities, especially in New Jersey, are hopelessly inadequate. The patients may best be treated in a convalescent hospital and one small hospital, like a flashlight beacon in the night, is inadequate to meet our present rheumatic problem. Foster homes are less popular now and have many serious drawbacks. The general hospital serves its function well in the care of the acute phase of the disease, but long term care cannot be expected of it.

For the present, we must rely upon the home in the absence of adequate hospital facilities. We must make it work and we must set up a suitable program for the child's sake. As one looks about New Jersey, one can see beautiful institutions for the mentally ill, extensive sanatoria for the tuberculous, successful "March-of-Dimes" programs for poliomyelitis (which is no more disabling and causes far less deaths); millions for cancer research, yet not one state or county institution for the pitiful child facing a lifetime of cardiac invalidism. Reading posters on the walls of our buses and trolley cars, we learn that one in eight will have a malignancy; but, far more ominous: one in three will die of heart disease.

The psychologic aspect is perhaps one of the outstanding problems. No other disease requires so long a time in bed as does rheumatic fever. Watch the demoralizing effects of a coronary occlusion in an adult, one matured and somewhat schooled in the vicissitudes of life; then consider the psychic trauma in taking a child out of the playground and putting him to bed for a year. This involves fixations of thoughts on the body, constant prohibitions, blood tests, x-ray, fears, unguarded remarks by doctors and staff on a formative mind; and thus we develop the cardiac neurotic of the future.

ETIOLOGY

The exact cause of rheumatic fever is unknown, but we do know its fellow travellers, its penchant for the needy population of our large cities where crowding, undernourishment, poor hygiene and poor conditions abound. It runs in families. It prefers the winter and the spring. It may strike with obviousness or with a diabolic inscrutableness. All workers in the field must be familar with its manifold manifestations. We can all be brilliant diagnosticians in the presence of fever, and migratory joint pains in a young

* Read by invitation to the Pediatric Institute of the New Jersey League of Nursing Education, March 11, 1949.

person who has had a cold or sore throat one to three weeks earlier; but we must remember the deceptive signs and symptoms. A list of these include:

1. Chorea
2. Polyarthritis
3. Carditis, including pericarditis, myocarditis, endocarditis and pancarditis
4. Purpura
5. Erythemata (marginatum or nodosum)
6. Torticollis
7. Epistaxis
8. Subcutaneous nodules
9. "Growing pains"
10. Pallor without anemia
11. Pallor with anemia
12. Pleuritis
13. Pneumonitis
14. Encephalitis and behavior disorders
15. Bouts of nausea, vomiting and abdominal pain (peritonitis?)
16. Poor appetite
17. Easy fatiguability and listlessness
18. Low grade recurrent fever and sweats
19. Loss of/or failure to gain weight
20. Tachycardia—especially nocturnal
21. Emotional instability
22. Recurrent attacks of tonsillitis
23. Hematuria

New Jersey is notorious for the atypical cases, and we do not possess one conclusive diagnostic test. Diagnosis rests on presumption and clinical impressions.

Our present task is to describe an ideal program in an unideal situation, that is—the convalescent care of rheumatic fever in the home. Not all homes are properly set up, not all parents highly intelligent, not all systems of life Utopian in character. In view of the lack of existing facilities, we must make the best of our present situation.

The acute phase is over, the general hospital and its staff have done a successful job in treating the problems of this period. The hospital bed is needed for another acutely ill case and the patient is forced to go home, perhaps to a dark, dingy, tenement. Thus, a ten-point program of care has been devised.

The first phase of our program is the *physical*. This includes complete bed rest until all signs and symptoms of activity are gone. Most physicians do not give salicylates in this phase of the disease unless arthralgia has persisted.

The second phase is *psychologic*. The patient must be given to understand that staying in bed is temporary, that it can be made a great deal of fun, that the things he can do later will depend on doing now what the physician outlines. Tactless remarks, undue dwelling on the cardiac aspects of his disease and odious comparisons with well children are all scrupulously avoided. The child is entitled to a simple explanation of his disease. We must not be mysterious about the problem. All who come in contact with him should avoid making comments about a shortened life or a sudden death.

One of the hardest things for a cardiologist to manage is the patient with organic heart disease who has a superimposed cardiac neurosis. The fast pulse may be "emotional", not due to early failure. The dull left chest pain psychogenic, not anginal. We may be lulled into a false sense of security and not initiate an important medication such as digitalis when it should be started.

3. *Educational.* A home teacher should be provided. In several cases it has been known that the patient returned to school ahead of his class instead of being burdened down during this important transitional period by finding himself behind the other pupils. The teacher must be kind and sympathetic, but must never coddle the patient nor push him too hard.

4. Enlightened lay people with the tact and wisdom of the Great Humanitarian, not afraid to go into the homes of the least favorable type, imbued with a great sense of altruism can help these children immeasurably by reading to them, or playing games with them; or by devising other clever forms of planned entertainment which will make the days go faster. Thus, there will be less desire on the patient's part to "cheat" on the program. This is *recreational* therapy.

5. *Occupational therapy* has become a major technic in the care of nervous and emotional diseases. This is enough to recommend it to our program. Also, experience at the Victoria Foundation (Children's Heart Unit) has been enlightening. The children produced remarkably clever things, learned something

by it and gained something from it in the way of quiet and relaxation.

6. *Diet* should be well balanced and nutritious, especially high in protein and vitamins. Additional vitamins are necessary, particularly Vitamin "C", because the blood levels of Vitamin "C" in rheumatic fever are low and the urinary excretion high. Parents on a certain economic level will need this problem clarified.

7. A weekly visit by a registered nurse is imperative. In the nurse we have the most trained visitor of all who will see our patient. She will record the temperature and the pulse, making recommendations for the doctor which will aid him inestimably in evaluating the child's rheumatic activity. Her report to the doctor is invaluable. Hence the Visiting Nurses' Association is our indispensable ally.

8. How about social workers? Of them, it may be said that their reward shall be in heaven. Those who have not read the article by Grace White[1] should do so at once and profit by it.

9. The *clinic visit* is the weakest link in this framework. Transportation must be provided, perhaps by the American Red Cross. It is too bad we cannot provide visiting physicians. A patient with smouldering rheumatic activity is asked to get up out of bed after valuable months' time there, ride to the clinic, wait his turn and perhaps walk stairs. On the other side of the picture is the need for the professional examination, the availability of the electrocardiograph, stethogram, the fluoroscope, and the laboratory work. I do not know the answer to this problem, except paid, trained visiting physicians.

10. *Prophylaxis*. The patient and his family must be educated concerning all the ways to prevent recurrence of this disease. This involves eradication of foci of infection, such as teeth, tonsils and sinuses under the protection of penicillin and the sulfa drugs. Attention must be directed to diet, vitamins, perhaps the institution of iron for anemia and faithful maintenance of the sulfa drug program. The recent penicillin prophylaxis program is showing some promise. General measures involve the avoidance of colds, people with colds, dampness, fatigue and insufficient clothing. Any respiratory infections should be treated aggressively with bed rest, salicylates, and possibly, sulfonamides and penicillin. The American Heart Association and the Metropolitan Life Insurance Company have excellent free brochures for the public on this problem.

All workers in this field must be familiar with the signs and symptoms of subtle activity. Some of these are:

1. Easy fatiguability
2. Poor or capricious appetite
3. Failure to gain weight
4. Elevated sleeping pulse
5. "Low grade" fever
6. Sweats
7. Irritability, anxiety, restlessness
8. Listlessness
9. Precordial consciousness and palpitation
10. Pallor with or without anemia
11. Poor pulse response to even slight exercise such as walking to the bathroom or sitting in chair while bed is being made
12. Headaches
13. No improvement in vital capacity
14. Persistently elevated sedimentation rate
15. Respiratory rate a little elevated

Above, I have presented a ten-point program for the convalescent care of rheumatic fever in the home. It is recognized that the convalescent hospital is the ideal plan; but, because of the lack of these facilities in New Jersey, a working program for the care of these children in the home is imperative. All agencies involved in the various features of this program should work together. Thus, indeed a missionary program is established and one is reminded of Luke, the physician of the Bible quoting the Great Physician who said, "Whosoever has received this child in My name, received Me. . . . for he who is least among you all shall be great".

1. White, Grace: Role of the Social Worker in the Management of Rheumatic Heart Disease. American Journal of Medicine, 2:618 (June 1947).

601 Ridgewood Avenue

DERMATITIS HERPETIFORMIS

REPORT OF TWO CASES IN CHILDREN TREATED WITH AUREOMYCIN

Morris H. Saffron, M.D., Passaic, N. J.

Dermatitis herpetiformis is an uncommon skin disorder of unknown cause, characterized by a multiformity of elements. These may include erythema, wheals, papules and pustules: but invariably also include vesicles and bullae. The disease has a tendency to extreme chronicity, with partial or complete remissions of variable length. Often, there is symmetrical grouping in circumscribed areas, such as the sacrum, buttocks and scapular region. An intense, stinging, burning pruritus heralds the approach of an exacerbation and gives rise to great distress. As Duhring [1] says, "the disease is remarkably rebellious to treatment". Although primarily a disorder of adult life,* no decade is exempt, and the syndrome has been observed in an infant of thirteen weeks. Fox [2] notes that in childhood, vesiculo-bullous lesions predominate, itching is less severe, and the characteristic grouping may be absent.

In the older literature, emotional stress was constantly emphasized as the cause. More recently, Sulzberger and Wolf [3] noted the close parallel of many features of this disease with those of the nonspecific sensitization dermatoses. Urbach and Wolfram [4] ascribe dermatitis herpetiformis to a filterable virus which attacks the skin through the nervous system. Exacerbations have been attributed to the ingestion of halides and to chloride retention.[5]

Treatment has been notoriously unsatisfactory. Earlier writers stressed the value of arsenic pushed to physiologic limits. Fox and Ormsby [6] reported good results from autohemotherapy. Real progress did not come, however, until the advent of the sulfa drugs.

Sulfapyridine acts forcefully in many cases, effecting prompt abatement of the pruritus and partial or complete clearing of the skin.[7] Thus, a 40 year old man, now under my care, has been taking 0.5 Grams of sulfapyridine twice daily for three years with comparative freedom from symptoms. Whenever I reduced the dose, he suffered a prompt increase in pruritus, the eruption reappeared, and eosinophilia could be detected. Return to the sulfapyridine routine controlled all these exacerbations. However, the disadvantage of straight sulfapyridine therapy is apparent, and the regime requires frequent hematologic and urinary studies.

Two cases of dermatitis herpetiformis came under my observation in the summer of 1949. Because of the good results with aureomycin, and because of the novelty of this method of treatment, this has seemed worth recording.

CASE ONE

A ten year old boy was referred to me by Dr. M. J. Wallace. A tall, thin, restless child, he has always been underweight for his height. He has had adjustment difficulties in school and among his companions, and is not amenable to control at home. In the hospital he seemed unusually alert and intelligent. He was not cooperative, ate poorly, insisted on a bright light in his room at night, and was readily moved to tears.

The present eruption, the first in the child's history, began six weeks before his admission to St. Mary's Hospital, Passaic. Earliest lesions appeared on the wrists and ankles, and rapidly spread to the buttocks, sacrum and scapulae. Burning and stinging were predominant symptoms. Pruritus was present, and scratching could not be helped by local applications or internal use of anti-histaminic drugs. To control a secondary infection and resultant fever, penicillin intramuscularly was administered during the week prior to admission, without any effect on skin or temperature. My own original observation occurred at this point. A considerable portion of the integument was covered with vesicles, crusts and bullae. Lesions were noted on the buttocks, sacral region, shoulder area, face and all four extremities. There were no oral lesions. Nikolsky's sign was absent. An eosinophilia of 10 per cent was noted in an otherwise normal hemogram. He was given one Gram of sulfapyridine plus 25 milligrams of theophorin every four

* Maximum incidence is in the 20 to 40 age bracket.

1. Duhring, Louis A.: *Cutaneous Medicine.* W. B. Saunders, Philadelphia, 1897, 2:443.
2. Fox, Howard: *Diseases of the Skin in Infancy and Childhood.* D. Appleton and Company. New York, 1931. Page 106.
3. Sulzberger, M. B., and Wolf, Jack: *Dermatologic Therapy in General Practice.* Year Book Publishers, Chicago, 1940. Page 404.
4. Urbach, E., and Wolfram, S.: Archives of Dermatology and Syphilology, 33:788 (Dec. 1936).
5. Urbach, E., and LeWinn, E. B.: *Skin Diseases and Metabolism.* Grune and Stratton, New York, 1946. Pages 24-25. Page 522.
6. Cited in Fox, Howard: *Diseases of the Skin in Infancy and Childhood.* Appleton, New York, 1931. Page 106.
7. Swartz, J. H., and Lever, W. F.: Archives of Dermatology and Syphilology, 47:680 (November 1943).

hours. Baths of potassium permanganate were administered twice daily. Results were good. Within a few days, new lesions were less frequent and of smaller size. Scratching appreciably diminished. Within a week, eosinophiles were down to 4 per cent, but the red cell count had dropped to 3,250,000.

For this reason, the sulfonamide was discontinued and 300 milligrams of aureomycin hydrochloride per day were substituted. From this point on, improvement was dramatic. New lesions and pruritus diminished to the vanishing point. The persistent daily temperature rise disappeared. He was discharged 19 days after admission, and at the time of discharge only a few pin-point vesicles were visible. When last seen, 26 days after admission, he was home, gaining weight, free from pruritus, and still taking the same dose of the aureomycin. Only a few minute vesicles can now be seen.

CASE TWO

A two year old girl was referred to me by Dr. T. F. Reilly. She had had chicken pox at the age of 8 months but has not yet been vaccinated. The parents have remarked that she is very sensitive and is frightened readily by "new things and places". Enuresis still persists. The day before the outbreak she had been frightened on her first experience with outdoor bathing.

The eruption first appeared as isolated vesicles on the buttocks; these increased in frequency and spread to the scapulae. Tendency to symmetrical grouping remained marked, although isolated lesions were found on the face, scalp and abdomen. Pruritus was severe and the child was unable to sleep. Local applications were without effect. Although the other children were in intimate contact with the patient there was no transmission of the disorder. She was first seen five weeks after the onset. One per cent eosinophiles were found in the blood. The buttocks and shoulders were covered with the excoriated remains of numerous vesicles, interspersed with several which were unbroken. Three hundred milligrams of aureomycin were given orally per day, here again with remarkable results. There was an immediate amelioration of symptoms and healing of the lesions. When again seen 4 days later not a single new vesicle was noted, and at this writing complete involution has occurred, leaving brownish-red discoloration. Aureomycin is being continued.

CONCLUSIONS

1. Aureomycin given to two children with dermatitis herpetiformis brought gratifying and spectacular results. Dose was 300 milligrams of aureomycine hydrochloride, four times a day, in a 10-year old; and once a day (orally) in a two-year old.

2. This drug effected a remission more speedily than has been noted with any other medication.

3. Because of the safety factor, aureomycin is preferable to the sulfonamides. This is especially imporant because of the chronicity and relapsing nature of the disease.

4. Aureomycin has a spectrum of activity which includes many virus diseases. This suggests that dermatitis herpetiformis may be eventually placed in that category.

5. Individual susceptibility to the action of the virus may be affected by acute psychic trauma or by persistent emotional difficulties.

292 Paulison Avenue

FIFTY YEARS AGO

FROM A PAPER READ AT THE 1899 MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY: "Traumatic neurasthenia rarely if ever is fatal, hence opportunity to study its morbid anatomy is nil. . . Structural changes in all probability are confined to the neuron or nerve cell. Traumatic neurasthenia may be defined as a so-called functional disorder of the nervous system attended by loss of vitality, weakness and exhaustion of the nerve centers, the exciting cause being trauma. Neurotic heredity is an undoubted factor. Lithemic people* are favorite subjects for neurasthenia." (Pages 137 to 148 of the 1899 TRANSACTIONS.)

* For the benefit of recent graduates in medicine, it may be explained that a lithemic person is one with an excess of uric acid in his blood.—Editor.

ONE HUNDRED YEARS AGO

REPORT (1849) FROM EASTERN DISTRICT OF NEW JERSEY: "I have to report a case in which death resulted from vaccination. The virus was procured from a healthy child whose arm had been no sorer than usual. And though it was applied to many others, unhappy consequences attended only this case. The patient, six months old, was three weeks gone in whooping cough. The fourth day after the vaccination an erythema commenced at the sore, enveloped the body and destroyed life through a diphtheritic inflammation of the throat. The family of the father was very subject to erysipelas, and the untoward consequence of the vaccination was laid to the account of this hereditary predisposition." From pages 438-439 of the 1849 *Transactions*.

SURGERY OF THE GALL BLADDER AND BILE DUCTS *

A Report of 975 Cases

Max Danzis, M.D., Newark, N. J.

This presentation is an attempt to bring before you my personal experience in the changes that have taken place during the last three decades in surgery of the gall bladder tract. There is adequate material in this group to show the changes in the surgical technic, to point out the recent trends, discuss some of the debatable procedures and the technical difficulties frequently encountered in that branch of surgery.

Many of us still remember the old controversy as to the merits of cholecystectomy versus cholecystostomy. Even today we still have a few problems in biliary tract surgery that have not been completely solved. Should one submit to immediate operation every case of acute cholecystitis? Should the common duct be explored every time one does a cholecystectomy? Should cholangiography be performed during the operation? How long should one retain the "T" tube in the common duct? These debatable procedures are frequently discussed in the literature. The leaders of these discussions usually come from our large medical centers or from the foremost surgical clinics, with their wealth of surgical material and their vast experience in that particular branch of surgery.

The general practitioner who sees the patient in an attack of biliary colic, and the gastro-enterologist who sees the patient after the acute symptoms have subsided are inclined to advise expectant treatment, before resorting to surgery. Neither of these sees the complications and the disastrous results which frequently follow procrastination in certain types of cases.

The post-cholecystectomy syndrome (which occasionally follows that operation) is advanced as proof that in a large proportion of cases, the operation does not relieve the patient of his symptoms. These statistics include a fair number of patients of the non-calculus cholecystitis type, whose pre-operative symptoms were vague, and in whom the cholecystectomy was done because nothing else was found at operation to explain these pre-operative symptoms. These statistics also include those patients who may be suffering from either residual or newly formed stones in the extra-hepatic ducts, or from post-operative adhesions between the liver and its contiguous structures. The so-called biliary dyskinesia cases are probably also included in this post-cholecystectomy syndrome group.

My own experience in a large group of cholecystectomies with stones, without any other associated diseases, has been very gratifying. Every patient is entitled to palliative treatment during or following his first attack of colic. But if the attacks recur, and the symptoms become more persistent, operation is definitely indicated. Prolonged suffering can be obviated, and occasional lives saved if the operation is performed after the diagnosis of a persistent and troublesome gall bladder disease has been reasonably well established.

Most of us today accept cholecystectomy as the ideal surgical procedure. Very few question its merit. However, some of the more recent trends are subject to debate. Those who advocate some of the more radical procedures bring forth statistics indicating that the post-operative mortality in uncomplicated biliary tract surgery is less than 1 per cent in some clinics, and that the mortality in common duct surgery varies between 2 and 3 per cent.

On the other hand, in a book discussing the role of liver surgery, the author states that, "The mortality of the average surgeon is in no wise comparable to these figures, and it is the average surgeon who does most of the surgery which is being done, and who therefore actually and proportionately supplies most of the mortality". I partly disagree with this statement because of its generalization; and, as

* Read November 17, 1948, before the New Jersey State Society of Surgeons.

we know, most generalizations are misleading. Most modern surgeons are well aware of the problem and perfectly capable of coping with the well established technical problems involved in gall bladder surgery. Nevertheless, there is a strong element of validity in this statement, particularly with reference to the more difficult procedures involved in the application of newer and more radical methods of treatment.

Few surgeons reject a new constructive method in surgery, provided that the new procedure does not involve many technical difficulties which cannot be easily mastered by those who have not had access to adequate clinical material. But if the reverse is the case, (that is, if a new procedure is associated with a greater risk to the patient either in morbidity or mortality, or if the operating surgeon has had very limited experience in that branch of surgery) the adoption of such procedure should be weighed very carefully. For instance, the surgical morbidity and mortality might be considerably increased if routine exploration of the common duct would be accepted as a standard procedure in every cholecystectomy operation regardless of the surgeon's experience, and without any positive evidence of pathology in that duct.

I am presenting a short resume of 975 gall bladder operations performed by me during the last three decades, collected from my personal records. Females predominated over males in a ratio of eight to one. In 767, or 69 per cent, cholecystectomy was done. In 147, or 15 per cent, cholecystostomy was done. In only 61, or 6 per cent, a choledochostomy was done with either a cholecystectomy or cholecystostomy.

The transition between the cholecystostomy and cholecystectomy type of operation is well illustrated in my own experience. We divided these cases into five sub-groups. In the first series of 70 cases performed between 1915 and 1921, there were 27, or 40 per cent of cholecystectomies against 42, or 60 per cent of cholecystostomies. There was only one choledochostomy in this group. Cholecystostomy was then considered the most acceptable procedure, and therefore this operation predominated in this first group of 70 cases. After a careful follow-up, it was found that in this group of 70 cases, 22 per cent required re-operation. In all of these re-operative cases, stones were found. These figures indicated that cholecystectomy was the more desirable method and from that time on, the more radical procedure was adopted. It increased progressively to 63 per cent in the second group, 75 per cent in the third, 81 per cent in the fourth, and 87 per cent in a series of 518 cases, performed between 1928 and 1946.

Cholecystectomy is just as safe a procedure as that of cholecystostomy. Today we do not hesitate to remove the gall bladder in the acute suppurative stage, even in those associated with pericholecystic abscess.

We have individualized our procedures. In the aged and debilitated patients (or in those presenting technical difficulties which may result in injury to the ducts or seriously reduce the patient's chances of recovery) the safer procedure of cholecystostomy was adopted.

The mortality of uncomplicated primary cholecystectomy was 2.7 per cent, as reported in 1938. On the other hand, the mortality was much higher where a secondary cholecystectomy had to be done following a previous cholecystostomy. Prolonged gall bladder diseases, such as recurrent cholecystitis, empyema or jaundice, and in some instances gall bladder perforation, make these patients very poor surgical risks. This higher mortality can be obviated by doing a primary cholecystectomy on all interval and subacute cases, and even in the acute type of cases where the patient's condition warrants this operation.

The most dreaded surgical accident in gall bladder surgery is common duct injury. This occurred twice in our series, one in the first group, and one in 1925. We are fortunate not to have had any common duct injuries during the operation since that time. We removed the gall bladder from below up, instead of from above down, except in the acute suppurative type, where the identification of the extra-hepatic biliary ducts is most difficult. The advantage of removing the gall bladder from below up is a clear operative field, and very little

bleeding. Those who advocate the removal of that viscus from above down, feel that there is less danger of injury to the extra-hepatic ducts in such a procedure.

Conceding that there are a certain number of cases where the identification of the structures is difficult, we nevertheless feel that with proper exposure (that is walling off the entire gall bladder area, and incision into the right free border of the gastro-hepatic omentum) the cystic duct and artery can be identified and ligated separately. The cystic duct is doubly ligated far away from its insertion into the common duct to avoid any constriction of that structure. Extreme care must be exercised when the upward pull is exerted on the gall bladder in order to bring the cystic duct into view, not to cause kinking of the common duct at its junction with the cystic duct, otherwise the common duct might be injured when the "T" clamp is applied, on the duct.

When the clamp has been applied around the cystic duct, it is advisable to move it up and down around the duct in order to clear that structure up to the ampulla of the gall bladder, and trace it down to its insertion into the common duct before it is severed, and the ligature applied.

Much stress has been laid on the cystic duct anomalies. However, in a recent study [1] of 500 specimens, only 2.4 per cent of anomalies of the cystic duct were encountered. This is a much lower incidence of anomalies than that described by Eisendrath in 1920. In this recent study it was shown that in 98 per cent of the cases, the hepatic artery runs entirely to the left of the common bile duct, and if proper caution is exercised, injury of that artery is easily avoided. In only 2 per cent of the cases did the hepatic artery cross in front of the common duct. The direction of the cystic artery, whether it is parallel, spiral, or angular, should be observed before ligation. When hemorrhage from a cystic artery occurs, no attempt is made to abruptly grasp the bleeding vessel. The mouth of the vessel is identified under direct light, grasped with forceps and ligated. Injury to the duct is thus avoided.

1. Daseler, Edward H.: Surgery, Gynecology and Obstetrics, 85:1 (July 1947).

CHOLECYSTOSTOMIES

The frequency with which this operation was done has been gradually decreased as our experience in this branch of surgery widened. It dropped from 60 per cent in the first series of cases to 14 per cent in a later series, and finally down to 6 per cent in a larger series of 518 cases. Indications for cholecystostomies are gradually lessened with the increased experience of the operating surgeon.

Cholecystostomy was done because there were definite indications for its performance, such as empyema of the gall bladder, acute pancreatitis, acute suppurative cholecystitis, and acute hemorrhagic cholecystitis. Ruptured gall bladders with peritonitis which were encountered mostly in the older groups, was also an indication for this type of operation. Stones, associated with carcinoma of the gall bladder, which was not suspected pre-operatively, are also included in this group.

One debatable procedure is the question of immediate or delayed operation in cholecystitis. About ten years ago some surgeons began to advocate removal of the gall bladder during the acute stage. They pointed out that prolonged delay causes many serious complications, such as empyema, perforation, peritonitis and even death. Statistics were offered from a large series of cases in which the operation was done in the acute stage, showing that the mortality was not higher as a result of this method. So far there is no unanimity of opinion on this.

Some have taken a middle course, advocating immediate cholecystostomy as soon as the acute symptoms become very pronounced, deferring the cholecystectomy operation for a second stage. My own experience with this more radical method is not very extensive. However, I differ strongly from those who advocate immediate cholecystostomy in all acute cases, deferring the operation of cholecystectomy for some future time. It seems to me that the ultimate aggregate post-operative mortality and morbidity would be increased if we submit every patient to two operations instead of one. I believe it reasonably safe to submit all cases of acute cholecystitis to a short period of watchful waiting. Most of these cases subside. Ruptured gall bladders with peritonitis

and pericholecystic abscesses are advanced as an argument for immediate operation. In my own experience it was found that acute gall bladders (except in the very aged) seldom perforate, and this is true also of pericholecystic abscess formation. A short period of waiting gives the surgeon adequate time for the necessary pre-operative preparation. But if the symptoms do not subside (or should suddenly become more acute) operation should be done. However, if operation is decided upon, cholecystectomy should be done, unless one finds a severe suppurative active process presenting extreme technical difficulties. In that case, a cholecystostomy is preferable. This is the practice we followed during the last ten years without any unfavorable results.

CHOLEDOCHOSTOMY

The common duct was opened in 61, or 6 per cent of our cases, admittedly a very small number. This is due to the fact that in our very early cases during the controversial "cholecystostomy versus cholecystectomy" period, a thorough search was not made when pronounced jaundice was not present. However, in our later and larger series, the common duct was opened in 11 per cent of our cases.

Routine exploration of the common duct as a standard method was not adopted. Choledochostomy was done only when stones were present, or in doubtful cases which presented a history of transient jaundice, or a widely dilated common duct. In suspicious cases, the duct was first aspirated, and if muddy bile was obtained, the duct was then incised and drained.

Comparative statistics gathered recently from our large clinics as against those gathered from smaller institutions and individual surgeons show that the common duct was explored in 48 per cent of the cases in the Lahey Clinic during the period of 1938 to 1941, and in 45 per cent of the cases in the Mayo Clinic, during the period of 1940 to 1942. On the other hand, statistics gathered from one large general hospital and from individual surgeons between 1939 and 1943, show common duct exploration between 11 and 13 per cent of the cases. It seems that statistics from the smaller institutions and the individual surgeons are comparable to those of my own.

Anatomy books tell us that the diameter of the common duct is that of a proverbial "goose quill". It is within the realm of possibility that without a great deal of surgical experience, danger of injury to the duct may be more common if routine exploration is adopted on mere remote suspicion. It is possible that in some of our cases, stones in the common duct might have been overlooked at the time of operation. In fact, three of my own patients were re-operated by me for common duct stones, and I can think of two who were operated by other surgeons. But the over-all results were highly satisfactory. I doubt whether a routine choledochostomy in all, or most of our cases at the time of operation might not have resulted in a higher morbidity or mortality. Although it is believed that the common duct is avascular in its duodenal portion, there are instances where the cystic or right hepatic artery may cross in front of the common duct and considerable hemorrhage may take place during its exploration.

How long should one retain the drain in the common duct? There is no unanimity on this. Some advocate prolonged common duct drainage as a preventive measure. Others believe that a period of ten to fourteen days is adequate. Our practice was to keep the "T" tube in the common duct for a period of at least ten days to two weeks. The vertical end of the tube was clamped off at short intervals several days after the operation, and if the patient experienced no pressure pain, the tube was removed. In doubtful cases, cholangiography was carried out to determine the presence or absence of a residual stone in the common duct.

Recurrent common duct stones are a frequent source of disappointment both to the surgeon and the patient. I can think of at least five patients who had recurrent stones, requiring re-operation, in spite of what was thought to have been a thorough exploration of the duct at the time of operation. The duct was widely dilated in these cases, there was no difficulty during the exploration; the explora-

tory instrument passed easily into the duodenum and up into the hepatic duct, and there was adequate post-operative drainage. There was no jaundice either immediately or for many months after the operation, but still the symptoms of common duct stones returned after several months, and at re-operation, stones were found in the duct.

Three of these patients were re-operated by me and two by other surgeons. One was re-operated by me twice for recurrent common duct stones, and she was then operated again by another surgeon, and a stone was found in the duct. Were these stones over-looked, or were new stones formed in the extra-hepatic ducts? If they were over-looked, why were the patients symptom free for a long time? Prolonged drainage through a "T" tube evidently did not remedy the situation, because in three of these patients, the tube was kept for a period of four weeks before it was removed.

I encountered a number of associated, complicating conditions, such as fistulas between the gall bladder and the stomach, the gall bladder and the transverse colon, common duct perforation, congenital absence of the gall bladder with a markedly dilated common duct, containing a number of stones.

Congenital absence of the gall bladder was found in a middle aged woman who developed the usual symptoms of pain and jaundice. At operation, no gall bladder was found and autopsy findings corroborated that. The common duct was widely dilated and contained many stones. The duct was opened and a "T" tube inserted. Immediately after operation, the patient developed a high temperature and complete suppression of urine. She received continuous intravenous of glucose and saline, totalling 6700 cubic centimeters during 36 hours; but only seven ounces of urine was obtained through the catheter. The patient died from the so-called "hepatico-renal" syndrome.

I have not encountered any other similar case in all my gall bladder operations. During the past twenty years, reports of such deaths within 24 to 40 hours after operation were reported in the literature. Hyperpyrexia, coma and urinary suppression are the outstanding symptoms. Ligation of the hepatic artery was given by some as a most likely cause. However, postmortem examination in a number of cases showed that the artery was not ligated. This syndrome is not entirely limited to biliary tract surgery or hepatic injury. Such deaths have occurred following other major operations, such as gastric resection, supravaginal hysterectomy, ventral hernias, etc. The reports of many of these deaths are based on autopsy findings. So far this condition remains in the realm of unknown etiology.

Among the post-cholecystectomy syndromes is the so-called biliary dyskinesia, which is a disturbance of the mechanism of the sphincter of Oddi, causing intermittent increased intraductal pressure. Various medical and surgical measures have been recommended for its relief, such as:

1. Medical: antispasmotics.
2. Surgical: dilation of the sphincter of Oddi.
3. Sphincterotomy (Culp-Dubelet).
4. Choledochal-denervation. This operation was conceived by my associate, Dr. Henry Reich. The operation is based on the theory that there are several nerve branches from the celiac plexus supplying the common duct near the duodenum. The presence of these fibres has been recently traced microscopically to the papilla of Vater by other observers. Section of these nerves causes a decrease in function of the sphincteric mechanism, which is also partly controlled by the activity of the duodenum. One such operation was performed on my service by Dr. Henry Reich, and its effects on the patient's symptoms were carefully observed, during his stay in the hospital. Frequent measurements showed a considerable diminution in the intraductal pressure following this operation. Since the publication of this case [2] in 1940, several reports have appeared in the literature, substantiating its rationale. However, the material is too meager to form any definite conclusions.

Primary carcinoma of the gall bladder is an insidious, slowly progressive disease. It is seldom diagnosed before it involves the extra-hepatic ducts. This condition was encountered eleven times, representing 1 per cent in our series of cases. There were ten females and one male. All had stones.

In a recent survey of 1645 gall bladder op-

2. Reich, Henry: Surgery, Gynecology and Obstetrics, 71:39 (July 1940).

erations performed by nine different surgeons during a period of ten years at the Newark Beth Israel Hospital,[3] there were 26 cases of primary carcinoma of the gall bladder—a ratio of 1.7 per cent. All were females, and all had stones. In 16 of these 26 cases, the diagnosis was not made even on the operating table. Evidently the disease was in its very early stages at the time of operation, and could be established only by microscopic examination. This would indicate that whenever a cholecystostomy is done, biopsy should be accomplished. Whether gall stones should be considered as one of the etiologic factors in carcinoma of the gall bladder is debatable. But since almost 100 per cent of our carcinomatous gall bladders had stones, and in view of similar findings gathered from the literature, one should consider carcinoma of the gall bladder as one of the prophylactic indications in gall bladder surgery.

3. Danzis, Max: Journal of The Medical Society of New Jersey, 45:274 (June 1948).

CONCLUSIONS

1. Gall bladder surgery is one of the most difficult procedures, because of its many complicating factors. One cannot be too cautious in its performance.

2. The procedure to be adopted should be influenced by the conditions present, the experience of the operating surgeon, and other factors peculiar to the individual case.

3. Avoidance of common duct injuries cannot be stressed too strongly.

4. The repair of common duct injuries even in the hands of the most skillful surgeons is not always satisfactory.

5. Routine duct exploration, while it is most desirable, should be carried out only after careful consideration of its indications.

6. Immediate operation in cholecystitis should be left entirely to the judgment of the surgeon in each case.

7. Biopsy of the gall bladder should be accomplished whenever a cholecystostomy is done.

31 Lincoln Park

THE TIME REQUIRED FOR A COMPLETE circuit of the circulatory system is 31 seconds for the horse, 15 for the dog, 15 for the goat and 8 for the rabbit. The values given were determined by severing one of the external jugular veins and injecting a solution of sodium ferrocyanate into the central end. Blood taken from the peripheral end was examined for the presence of the chemical at intervals, the elapsed time between the injection and the appearance being the time required for the blood to pass through the circulatory system.

ACCORDING TO THE U. S. CENSUS BUREAU, women live, on the average, three years longer than men. Although male births exceeded female in the ratio of 105 to 100, the higher male death rate is gradually bringing about a condition wherein the country will soon have a preponderantly female population. Studies of census tables show that this can be expected in five years, if the present yearly excess of 155,559 male deaths over female deaths is maintained. Male deaths are greater than female due to pneumonia, heart disease, influenza, auto accidents, tuberculosis, nephritis, congenital malformations and infant diseases while female deaths are greater due to diabetes, cancer and tumors.

MEETINGS OF M-S PLAN TRUSTEES

Regular monthly meetings of the Trustees of the Medical-Surgical Plan of New Jersey are held at 11 a. m. on the fourth Sunday of each month at the offices of the Plan on the 12th floor of the Kinney Building, 790 Broad Street, Newark. Accordingly notice is given that the next two meetings will be on September 25 and October 23.

STATE ACTIVITIES

THE SHADOW OF COMING EVENTS?

David J. Kaliski, M.D.

I had attended a meeting which featured a discussion of voluntary versus compulsory health insurance and returned home—weary and somewhat discouraged.

The program had been similar to many others and the audience reaction was familiar—some interested, others apparently preoccupied with personal and pressing problems. One of the speakers urged greater cooperation with existing voluntary Blue Shield Plans for medical and surgical care and pointed out that wherever government has taken control of medical practice it was the first step toward control of other professions and industries.

A young friend, whom I shall call Dr. John K. Prentice, disagreed with that theory and praised the speaker who had advocated compulsory health insurance. "I guess these voluntary plans are good enough in their way," Prentice said, "But the government program certainly is well presented and they've got a lot of good arguments. I think these ideas about free enterprise, voluntary initiative and things like that are on their way out anyway. They're old fashioned."

His attitude bothered me and I sat down in an easy chair in my study to think about it. Were there many physicians like him—content to let our voluntary system go by default and turn medical practice over to the politicians and bureaucrats?

I tried to clarify the issues in my mind and see into the future, but the hour was late and without realizing I must have dozed off into a troubled sleep. Suddenly everything became clear—the years had sped away and with a strange insight I saw Dr. Prentice at his desk. . . .

He looked older, and was reading a newspaper. A certificate on the wall said that he, John K. Prentice, medical license No. 41873-654-N, was authorized to practice in the 4th District, Ward K, of the New York City division of Federal Medicine. He looked at his "diploma", then deliberately folded his newspaper, tore it in half and dropped it into the wastebasket.

Again the newspaper headlines featured the stern warnings of the Administration leader and the arguments that had in the past few weeks created a national controversy.

"It is obvious" the Administration spokesman accused "that our nation is suffering because of a poor distribution of facilities for legal advice.

" In many part of the country there are no lawyers at all. And everywhere the cost of legal guidance is so high that only the wealthy can afford it.

"Men and women in the lower income groups are leading confused and unhappy lives, constantly entangled in legal difficulties because they lack proper supervision. Statistics show that there are 150,000 unnecessary court cases each year because of poor facilities for individual legal advice.

"This situation is resulting in a great loss of man-hours in our industries; growing psychiatric problems among discontented and unhappy people and a lowering of our standards of living. What are the selfish aims of a few hundred thousand lawyers compared to the needs of 160,000,000 people?"

The story was an old one to Dr. Prentice. He remembered hearing the predictions of his colleagues at the Medical Society meetings in 1949 when the doctors were at the height of their struggle against socialized medicine. He hadn't taken it very seriously then—in fact, didn't realize the implications of the movement until the Medical Society was disbanded. He remembered listening to a discussion of the local Blue Cross and Blue Shield Plans by a doctor who had said, "Unless we actively support and participate in these voluntary plans for hospital and medical care we may lose all that has been accomplished by voluntary effort. It's up to us, as physicians, to tell our patients and our friends of the dangers that lie in compulsion and regimentation." But he hadn't done much about it—and now it was too late.

The pattern was familiar and now, ten years later, his friends in the legal profession were debating with each other and trying to form some effective opposition to the idea of com-

Reprinted with permission from The Westchester Medical Bulletin, 17:11, July 1949.

pulsory legal insurance. Some of the younger ones thought it would be a good thing. "It will take the uncertainty out of our profession," they argued. "We'll be paid by the government for each matter we handle and won't have to worry about existing from mouth to mouth in private practice." Television studios were presenting forums on "Compulsory legal insurance versus private practice" and the few radio stations still in existence were giving away jackpot prizes for the best letters on the subject. Many doctors were writing anonymous letters of protest to the editors of the nation's newspapers. They might have been more effective if they had been signed, but that would put the doctor in danger of having his panel of patients reduced, or possibly, of transfer to some remote Federal Medical District.

The lawyers placed their hopes upon a growing segment of the population that was resisting the administration's plan to extend its controls. This resistance seemed to gain force soon after the enactment of compulsory health insurance. However, that growing resistance was termed "reactionary" by the Administration leaders and it was, still, poorly organized. In every encounter the Administration apparently presented the strongest arguments and the clearest logic. Its propaganda machine, now thoroughly experienced and trained in persuasive techniques and heavily financed, made the opposition seem confused and inadequate.

Dr. Prentice tried to shake off the feeling of depression and futility that had settled over him during the past several weeks. There were at least thirty-five patients in the waiting room to be examined within the next hour or so. Then he was due at the City Hospital to examine and treat the ward patients. There were many more of those now than when it had been a voluntary hospital. In fact, it would be difficult to find or pay for private or semi-private accommodations today.

He knew that the other doctors who shared office space in the Federal Medical Building felt the same sense of futility and hopelessness. He wondered if they, too, shared his sense of guilt. If they had done their part to advance the Blue Shield Plan they might still have that symbol instead of the government seal.

He stared at the closed door, as though trying to see the faces of his patients sitting in resignation on the waiting room benches.

He glanced again at the torn newspaper in his wastebasket, at the files of government forms and reports that ringed his office—then rearranged the pill bottles on his desk and pushed a button to summon the next patient. . . .

I awakened with a start from that very graphic dream and it was a few moments before I realized, thankfully, that I was in my own study in 1949 and still a free man. Of course, I reassured myself, such things can't happen here.

Or—can they?

The difference between dream and reality is vigorous concerted action—and the action necessary to support and expand our voluntary Blue Shield Plans for medical and surgical care is the responsibility of every physician.

The "Doctor Prentice" of today—undecided and indifferent—may leave a heritage of regimentation and professional disintegration to John Jones, lawyer—Paul Adams, engineer—and all the others who may be next in line for government control if compulsory insurance under federal control sets the precedent.

SUPPLEMENTARY LIST No. 6 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Blum, Milton, 41 Tonnele av., Jersey City (9)
Booken, Gerald J., 1 Johnson av., Newark (7)
Branon, Mark E., 16 W. Passaic av., Rutherford (2)
Brophy, Francis X., 116 Bentley av., Jersey City (9)
Brunhofer, Andrew, 714 Cedar Lane, Teaneck (2)
Choffy, Sylvester A., 202 Bergen av., Jersey City (9)
Cortese, Joseph T., 517 Roseville av., Newark (7)
Elsasser, Theodore H., 7206 Park av., Woodcliff (9)
Faraci, Charles J., 23 Diam'd Spring rd.,Denville(14)
Flax, Charles H., 71 Baldwin av., Newark (7)
Frieman, Hyman, 744 Avenue C, Bayonne (9)
Higgins, Thomas F., 224 Monmouth rd., Elizab'h(20)
Lamy, Anthony W., 560 Newark av., Elizabeth (20)
Lease, Henry J., 111 74th st., Woodcliff (9)
Luce, Henry A., 12 Mt. Vernon av., West Orange(7)
MacLaren, Philip J., 3 Tenafly ct., Tenafly (2)
Mango, Concetta G., 1 78th st., North Bergen (9)
McLoughlin, John W., 34 W. 32nd st., Bayonne (9)
Moretti, John J., 18 Ivanhoe ter., East Orange (7)
Murdock, Alfred W., Jr., Sparta (14)
Prall, Henry E., 755 Anderson av., Cliffside Park (2)
Scerbo, Ernest, 33-14 Broadway, Warren Point (2)

MALPRACTICE INSURANCE FOR YOUR EMPLOYEES

In view of the present trend of bringing suits jointly in which the doctor and one or more of his employees are held individually and respectively liable, it has become necessary for your insurance committee to clarify the extent and limitations of your professional liability contract.

Here is what your policy provides: the doctor is covered for any and all acts of his own and for nurses, assistants, technicians, etc., for which he is individually chargeable.

The doctor is covered for his and their acts and has full protection in the amounts for which he is covered under these captions set forth. *For example:* where suits are instigated against an insured he is fully covered for his own acts, for the acts of his assistants, but where suits are brought not only against the doctor but against one or more of his employed assistants, technicians, nurses, etc., the latter are not insured against their personal liability. The doctor may well ask as to how these employees can be protected for their personal liability. The answer will be that the company has agreed to provide a separate policy in the name of the employees in accordance with the following schedule of rates:

Laboratory technicians, 20 per cent of the ordinary practitioners' rate.

Physiotherapists, 50 per cent of the ordinary pracitioners' rate.

X-ray technicians, diagnostic work only, 50 per cent.

X-ray technicians giving treatments, 100 per cent of the x-ray doctor's rate.

Blood technicians, 25 per cent of the basic physicians' rate.

Graduate or registered nurses, 20 per cent of the physicians' rate.

Our official broker, Faulhaber & Heard, Inc., is prepared to secure protection for your employees and will furnish the necessary applications for this coverage. It is optional as to whether the premium cost is paid by the doctor or the employee as the rate will be the same.

J. WALLACE HURFF, M.D., Chairman,
Committee on Medical Defense
and Insurance.

OBITUARY

DR. HENRY C. BARKHORN

Dr. Henry Charles Barkhorn, long prominent in affairs of organized medicine, and for two decades chairman of the publication committee of this JOURNAL, died of a heart attack on July 27, 1949. Editorial comment on his death appeared on page 365 of our August issue. Dr. Barkhorn was born in Newark, 63 years ago. He was graduated from the medical school of Cornell University in 1909 and had always been active in Cornell alumni affairs. In 1931 he was president of the National Medical Alumni Association of Cornell University.

After two years of internship, he returned to his native city in 1907 and did general practice for ten years. An increasing interest in otology and laryngology led to his specializing in that area, and since 1917 he had been prominent in that field of surgery. He was attending otologist at many hospitals including the Eye and Ear Infirmary, the Beth Israel and the Presbyterian Hospitals in Newark. He was active on the board of trustees of the Academy of Medicine, the Eye and Ear Infirmary, the Essex County Welfare Federation and the Essex County Tuberculosis League. He served as president of numerous medical organizations including the Academy of Medicine, the Doctors' Club, the Essex County Medical Society and the Practitioners' Club. He long presided over the library committee of the Academy of Medicine and was responsible for the vast expanse of the Academy's library. He headed the publication committees of both the county and the state medical Societies and carried major policy-making responsibility for both the Essex County *Bulletin* and this JOURNAL. In 1944 he won the coveted E. J. Ill Award in which he was characterized as "a man of wisdom, a talented surgeon, an eminent citizen". It is a description to which all his patients, professional colleagues and fellow-citizens will say "amen".

VIEWS AND REVIEWS

In this section, presently to be titled "Views and Reviews" the Executive Officer of The Medical Society of New Jersey will report to our readers on interesting and pertinent activities, accomplishments, and expressions of opinion from our colleagues in other states, and from other sources.

We have long been conscious of a need for a window to the outside world through which we may perhaps occasionally benefit by what is said and done in our sister societies throughout the country.

Mr. Bryan, whose regular activities with The Medical Society of New Jersey require him to keep in touch with our contemporaries throughout the nation, has volunteered to edit this new department. We hope he may be able to keep it up for as long as interesting material may be available and for as long as our readers find value and interest in the doings here to be recorded. —The Editor.

"Creeping Paralysis." Anyone who yet has lingering doubts as to the deadly seriousness of the world-wide struggle against communism, or who still fails to perceive the relevance of our fight against socialized medicine to the larger struggle beween communism and individualism, should take time out to read the novel "1984" by George Orwell. In a story of almost unbearable suspense, Mr. Orwell, a British left-winger, has drawn a completely plausible picture of what the world could become 35 years hence, after a few atomic wars have eaten the rest of the capital out of capitalism and Western civilization has plunged down the chute into the communist heaven of "security".

Just how hellish such a heaven can be is spelled out by Mr. Orwell in a picture of a society so socialized that no one any longer even has a private thought—trembles with terror, if he has.

Perhaps the most disturbing thing about "1984", as the magazine *Life* pointed out editorially, is that there is no new element operating in the society Orwell has portrayed that is not present in embryo or even in virulent form in Western society this year, 1949. The entire story of the ultimate "police state" or "welfare state", or call it what you will, etched out in such nightmarish fashion by Mr. Orwell is only a composite of presently existing ideas, technics and ideologies carried to their ultimate and logical conclusion.

"1984" is really quite a book, and we would enthusiastically recommend it to any of our friends who still want to know what the fight against socialized medicine has to do with the preservation of the "American Way of Life".

Individualism Has to Work. Perhaps the unmistakable hallmark of a communist state is the ability of one man to speak for a group without having to consult them. In the U. S. S. R., of course, this is carried to its ultimate. "Uncle Joe", sitting in the Kremlin, can decide within a matter of seconds what the entire U. S. S. R., comprising some 200,000,000 human souls, thinks or wants to do about any given problem. He doesn't even have to consult the Politburo, presumably, on some things. The rest of the populace reads what they are to think and most of them evidently have been conditioned to the point where they actually do think that way.

This, of course, is the antithesis of democracy. In a democratic society, comprising a whole complex of democratic institutions such as we have in the United States, each organization, each institution making up the whole of society does have responsible people whose job it is to try to express the consensus of the members of that group. If, perchance, such an individual spokesman persists for any length of time in expressing a point of view not upheld by a majority of his constituents, not only is he likely to "get the sack", but the influence of his organization collapses with him.

Perhaps even more disastrous to the influence of a group spokesman than those who disagree with him are those who remain totally indifferent.

As a rule, it is not the evidence of ferment and clashing opinions within an organization that destroys it, but rather the dead weight of inert indifference which so many otherwise democratic organizations have to carry along on the back of their active and responsible leaders.

This brings us to a definition of the chief obstacle that medical leadership has had to contend with in our program of public education: namely, inertia. It goes without saying that no organization can hope to go very far in educating or influencing the public unless it has first educated and motivated its own members.

This problem is optimistically viewed by the secretary of the Illinois State Medical Society in a recent *News Letter*. "As the program of education of the American Medical Association progresses," says he, "it becomes more and more evident that the weight of this work falls on the individual physician informed, ready to act, willing to take the time to 'dabble in politics' ".

After expressing his appreciation of the support tendered him by the rank and file of Illinois State Medical Society members in the now successful effort to block the President's Reorganization Plan No. 1, our Illinois colleague says: "We feel that the base of the pyramid of organized medicine is solid, that the information disseminated from the peak (A.M.A.) to the state societies and from the state societies to the county societies is being used to the best advantage. We have developed a team and an organization which is beginning to 'tell'. We can ask laymen in our communities to act *with* us and *for* us. Our membership is learning the importance of being informed, keeping informed and acting upon that information."

One of our Revolutionary forefathers rightly declared that the price of liberty is eternal vigilance. We are glad to be able to say of our membership what the Illinois secretary says of his. Even so, there is plenty of room for improvement. Most physicians as yet bear no battle wounds in the struggle for medical freedom.

Change Is Eternal. Paradoxically, while we all recognize that every living thing is constantly changing, it is hard to take change for granted. Many of us are constantly apprehensive about possible or inevitable changes and not a few of us, even as adults, seem to think we can somehow maintain a status quo unchanged.

The importance of maintaining an objective outlook in the face of changes affecting ourselves—of keeping things in proper perspective—was emphasized recently by Mr. Theodore Wiprud, secretary of the Medical Society of the District of Columbia and dean of lay executive secretaries of the state societies.

Mr. Wiprud, it seems was confronting the task of organizing a speech on "Economic Trends".

"With the assistance of my secretary", writes Mr. Wiprud, "I examined the references from 1930 to 1947 inclusive. I made a number of interesting discoveries, of one of which I was already aware: There are fads in titles as there are in other things. During the 1930's, use of the word 'trends' was most popular. The titles of 33 articles listed in *Index Medicus* contain this word. Along about 1942 a change was apparent. Titles were no longer concerned with 'trends'. 'Future' as in 'The Future of Medicine', 'Doctors in the Future', etc., had gained popularity. I was surprised to learn that 'crossroads' was not more frequently used, as in 'Medicine at the Crossroads'. Only 7 times did I find this title in the years 1930-47. However, variations of 'change' or 'changing' such as 'Medicine in a Changing Social Order' was used 33 times during those years. Surprisingly, I did not find the word 'crisis' used very often. That probably will be in vogue for the next few years.

"Some writers apparently endeavor to avoid the usual titles. The result was often comic as dramatic. Here are a few samples: 'Is It Twilight or Dawn?', 'Are We Heading for the Last Roundup?', 'Drifting Sands of Medical Practice', 'Medical Practice in the Melting Pot', and 'The Moving Finger Writes'.

"This is illustrative of what I mean by maintaining a proper perspective. Many matters are not so urgent as we may think they are. Great social changes rarely occur suddenly. They usually develop over a period of years and even generations. Change is usually preceded by ferment and, the Lord knows, we've had plenty of that in medicine in the past 20 or 25 years. Nevertheless, actual change still doesn't seem to be at hand, although the hue and cry goes on . . .

"In the final analysis", concludes Mr. Wiprud, "what happens to medicine will depend very much on economic and social conditions in this country, the temper of the people, and the leadership of the medical profession".

As to the economic and social conditions in the United States, in view of the economic interdependence of the entire world, any prophecy would be hazardous indeed. In fact, the other day we heard someone say that the best definition of an optimist today is one who thinks that the future is uncertain!

The temper of the people, however, is a factor which can both be probed and, to a degree, influenced. The medical profession is proving its ability to influence the temper of the people in our present national educational campaign.

Finally, as to the leadership of the medical profession there is no longer much doubt that such leadership—so long absent, or at best, maladroit—is at long last being realized. Medical men as a group have come out of their age old isolation. They are recognizing not only the political power of the lay public but their ultimate community of interest with the public.

"For Manners Are Not Idle." This is the title of a remarkable article published a few years ago in *Minnesota Medicine* by Dr. Louis A. Buie of Rochester, Minnesota. The title is taken from a verse of Alfred Lord Tennyson: "For manners are not idle, but the fruit of loyal nature and of noble mind."

There is, perhaps, an aura of quaintness in any discourse on the subject of manners in this brash and bustling age, but there is nothing irrelevant or starry-eyed about the way Dr. Buie relates the subject of gracious manners to the successful practice of medicine—as practiced on either the individual patient or the body politic.

Quoting Cardinal Newman that "it is almost a definition of a gentleman to say he never inflicts pain", Dr. Buie addresses himself to the question "how we physicians, in the various roles we must assume in this modern day, perhaps can perform our tasks with greater ease and effectiveness than otherwise we could, if in a world which seems no longer to value consideration for others, we insist on conducting our affairs with good manners, with courtesy, with decorum".

"I believe", says Dr. Buie, "that the people of the world are not only tired of struggle against hunger, illness, and an uncertain future but that they are also tired of strife. If this is so, it is particularly desirable now for our association to function with harmony among its members as well as in its environment."

Referring to medicine's relationship with certain other segments of the population, Dr. Buie observes that "among those who work for a living, he (the physician) is accorded whether he wishes it or not a slightly superior position. This he may accept, but the assumption of a superior manner on his part will not be condoned, particularly by those of his neighbors whose knowledge of sociology and economics may be better than his. He will need constantly to employ his insight into human nature to get the other's point of view. From this exercise of his faculties, he will derive the habit of tolerance."

Speaking of our conversational contacts with lay people on the subject of socialized medicine, Dr. Buie notes that "many times to the physician, with his special knowledge of his own field, these arguments may seem worthy of contempt but he must not reject them with a contemptuous air. He must try to assume the objective position of an impartial inquirer and to seek some means whereby he may determine why, or even whether, his opponent is wrong."

Of the many memorable facets of this remarkable discourse, we will cite one more. Speaking of the fact that science, "unrestrained by moral precepts can destroy man and all that he possesses and inhabits", Dr. Buie warns that "man must learn to live with man and he must know how to conduct himself in the presence of his own capacity for destruction".

Dr. Buie insists that this can be done "given the proper human behavior. . . In each and every human being, if the soul has been lost, a soul must be recreated. A community soul must be reborn; a national conscience; a native American morality. These must be displayed to the world. At the same time, all must be prepared with good grace to accept change in all values, even these."

J. E. B.

THE FOOD-FOR-THE-MEDICAL-MIND PROGRAM

Thousands of physicians abroad have lived for years in a scientific blackout. To help remedy this, CARE, America's nonprofit agency has embarked on a program of food for the mind. The aim is to replenish the shelves of universities and libraries in Europe and Asia with gifts of medical and other scientific books. Here's how it works: field representatives of CARE and UNESCO obtain lists of books needed in specified scientific fields. With funds made available by American individuals and organizations, CARE fills these needs by purchasing the latest scientific books.

Send your contribution to The CARE Book Program, 20 Broad Street, New York 5, N. Y. Donations under $10 are pooled in a general fund. On donations of $10 or more, donors may specify the country, institution and category (but not title) of the book. In such cases donors receive an acknowledgment from the institution to which the book was delivered. Each volume bears a book-plate inscribed "A gift from the American people."

Second hand books are not acceptable. All books purchased by CARE are selected from a bibliography compiled by a special committee of top notch scientists and librarians.

To reach the greatest number of people, delivery is being made to institutions only not individuals. Countries served are Austria, Belgium, Czechoslovakia, Finland, France, Greece, Italy, Japan, Korea, the Netherlands, Norway, Great Britain, the three western zones of Germany and all Berlin. Negotiations with Poland are pending. By agreement with each country, the books are admitted tax and duty free. Through special discounts with publishers, all costs of CARE's purchase and delivery overseas are covered at the book publishers' list prices.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

OLD AGE AS A FACTOR IN ACCIDENTAL DEATHS IN NEW JERSEY

Although the proportion of persons 65 years and older to the total population is about 8 per cent, that same group (during the first three months of 1949) accounted for 40 per cent of all accidental deaths. Individuals 45 years of age or older, representing 28 per cent of the total population, had 64 per cent of all accidental deaths.

During the first quarter of the current year, chief hazard in accidents for persons 65 and over was falls, these being responsible for 60 per cent of all accidental deaths for the group. Of these 122 deaths, 106 (86 per cent) occurred in homes, either private or resident institutions. Thirty-five per cent of these home falls occurred on the same level: slipping, tripping or falling was not due to any elevation other than the height of the individual from the floor. An additional 34 per cent of the fatal falls were unspecified as to nature of the fall. Since it can safely be assumed that many of this group were falls on the same level, efforts should be directed towards removing hazards such as loose rugs, broken boards and highly polished floors from the home environment of the elderly person.

Of those falls resulting in death to persons 65 years of age and older, 20 per cent were caused by stairs. Care should be taken to provide handrails, non-slip treads and adequate lighting for all stairs. It should also become routine practice for frequent inspections to be made of stairs and hallways to remove children's toys from under foot.

SEX AS A FACTOR IN SUICIDE

Based upon an examination of the 148 reports of suicides in New Jersey during the first three months of 1949, there appears to be a difference between the sexes both as to choosing to die by their own hands and in selecting the means to terminate life. There were three male suicides to every female. This proportion remained fairly constant even in the monthly figures. The white race was responsible for 96 per cent of the suicides for that period.

Of the 112 male suicides, hanging or strangulation accounted for 32 per cent. Firearms or explosives killed 27 per cent of the total. Poisonous gases were third choice, being selected by 19 per cent of the males.

Of the 36 female suicides, 15 or 42 per cent chose poisonous gases, with the second choice being tied between analgesic or soporific substances and hanging or strangulation. Each of these two groups was selected by 19 per cent of the females.

The inherent vanity of women may be a major factor in selecting the method least disfiguring to the appearance of the body. This wish for neatness has been exemplified in many cases over the years where the woman about to commit suicide (or the sick female about to call a physician) will insist upon tidying the house or her person before taking any other action. The choice of gas may also be influenced by the unfamiliarity of most women with firearms or by the non-availability of such weapons of destruction.

Men on the other hand may have such an inherent sense of family responsibility that they choose a weapon, the action of which can be limited to taking only one life; gas might result in the unintended deaths of other members of the household.

NATIONAL GASTROENTEROLOGIC ASSOCIATION

All physicians interested in gastro-enterology are reminded that the national specialty association in this field will hold a star-studded scientific session in Boston, October 24, 25 and 26. For further information and a detailed program write to the National Gastroenterologic Association, 1819 Broadway, New York 23, N. Y.

WOMAN'S AUXILIARY

WHAT —— NO SPARE TIME?

Four out of ten doctors' wives reading this article are guilty of saying: "I would like to cooperate with the State Auxiliary and the 1-10-20 Plan, but I just don't have the time!"

Bruce Barton once wrote an answer in the *American Magazine* to such a statement as this, quote: "Did you ever stop to think that most of the world's great men have achieved their true life work, not in the course of their needful occupations, but—*in their spare time?*

"At the day's end a tired-out rail-splitter crouched over his tattered books by candlelight or by fire glow. He was preparing for his future, not snoring or skylarking like his colaborers. Lincoln designed his path to later immortality *in his spare time.*

"At night an underpaid and overworked telegraph clerk stole hours from sleep or from play trying to crystallize into realities certain fantastic dreams in which he had faith. Today the whole world is benefiting by what Edison did *in his spare time.*

"While his fellow teachers laughed, a down-at-heel instructor in an obscure college varied the drudgery he hated by spending his evenings and holidays in tinkering with a queer device of his. However, he invented the telephone *in his spare time.*"

Ladies, you too have spare time. The man or woman who says: "I would do such and such a great thing, if I only had the time," would do nothing if he or she had all the time on the calendar.

We have had ample warning of the threat of government controlled medicine, and we must act now! If you are not already actively participating in your county auxiliary's 1-10-20 Plan call your county president today!

Remember there is always time—spare time—at the disposal of every one who has the energy to use it. Use it!

Mrs. Norman Nathanson,
President, Woman's Auxiliary,
The Medical Society of New Jersey.

BOOK REVIEWS

How to Become a Doctor. By George R. Moon, M.A. Pp. 131. Philadelphia. The Blakiston Company, 1949. ($2.00)

Trends in Medical Education. Edited by Mahlon Ashford, M.D. Pp. 320. New York. The Commonweath Fund, 1949. ($3.00)

These two books, both on medical education, came across the editorial desk on the same day. Mr. Moon's book is a friendly chat with the prospective medical student, which tells him how to write a letter of application to a medical school, how much it will cost to live while attending one, how the "medical college admission test" is constructed, and whether it is wise for a medical student to marry. It lists every medical school in the U. S. A. and Canada, outlines their admission requirements and mentions their tuition fees. It discusses such topics as how to be interviewed by an admissions committee, why some students fail in medical school, whether to accept outside employment while studying medicine, and the advantages of joining a fraternity. The book also gives a once-over-lightly to preparation for other vocations such as dentistry, veterinary medicine, pharmacy, chiropody, osteopathy, optometry, occupational therapy, hospital administration and medical art. It is a down-to-earth handbook that will be appreciated by any college student who is setting his sights on medicine.

A very different orientation to medical education is provided by the proceedings of the New York Academy's Institute on Medical Education. Bound into this volume are the papers read at the Institute, the comments and the open discussions. Thus about fifty different persons wrote parts of *Trends in Medical Education* and it exhibits the virtues and the faults of any anthology. It includes reviews of such topics as the role of the high school in preparing pre-pre-medical students, the importance of psychiatry in the undergraduate medical program, the postgraduate education of the rural practitioner and the training of the doctor to an awareness of his own "social and moral responsibility". It thus provides a fascinating grab bag of odds and ends of information about medical education, a collection of ideas more suitable for discussion than for implementation. Unfortunately the editor failed to provide an index, so that it is difficult to trail an idea through the book with any continuity.

Henry A. Davidson, M.D.

Book Reviews continue on other side.

Practical Aspects of Thyroid Disease. By George Crile, Jr., M.D. Pp. 355. Philadelphia, W. B. Saunders Company, 1949. ($6.00)

This book is as unusual in the humbleness of its tone as in the breadth of its outlook. Except for the unusual and rare conditions encountered, Crile draws only from the thousand cases with which he has had direct experience. For the rare cases he draws from the larger data of the Crile Clinic. The breadth of outlook is marked by the generous discussion of the antithyroid drugs in the treatment of hyperthyroidism and their proper place as compared with surgical approaches.

After an adequate chapter on the physiology of the thyroid, pathology, endemic goiter, intrathoracic goiter, diagnosis, and the role of iodine in treatment are discussed in adequate fashion without more than hinting at some of the more controversial angles of the subject. The chapters on anatomy of the thyroid and surgical technic leave little to be desired for clarity and detail. Problems of recurrent hyperthyroidism, anomalies of the thyroid and thyroglossal tract, malignancies and other thyroid tumors make up the closing chapters. There is a personal touch to the contents; more of a clinic than a text. The intimacy of the style is part of its clarity. This is the second author that the reviewer has read who speaks of chemical thyroidectomy with the thiouracil drugs at the same time pointing out their deficiencies, but in close parallel with the deficiencies of the surgical approach. This book is highly recommended for a thorough and up-to-date review of thyroid diseases.

Everett O. Bauman, M.D.

Clinical Auscultation of the Heart. By Samuel A. Levine, M.D., and W. Proctor Harvey, M.D. Pp. 327. Philadelphia. W. B. Saunders Company, 1949. ($6.50)

This unique book resurrects what has become almost a lost art: the use of the stethoscope. Although the authors include phonocardiograms and electrocardiograms to teach and to illustrate the various points of auscultation, the book is primarily and essentially clinical. Normal heart sounds are graphically described and variations from the normal are fully covered. The few pages on "gallop rhythm" reduce this confusing auscultatory phenomenon to simple understanding.

Most cardiac irregularities can be recognized by simple bedside auscultation of the heart. By attention to fine details, many of these disturbances can be deciphered by the use of the stethoscope and this section is replete with many practical helpful aids. The chapter on cardiac murmurs clarifies the great confusion concerning the significance of murmurs, particularly the systolic murmurs. The final section of the book discusses the recognition of miscellaneous disorders—pericardial friction, diaphragmatic flutter, venous hum, pulsus paradoxus and others. This book is valuable for cardiologist and general practitioner alike.

Edward C. Klein, Jr., M.D.

Fundamentals of Internal Medicine. By Wallace M. Yater, M.D. 3rd Ed. Pp. 1451. New York, Appleton-Century-Crofts, Inc., 1949. ($12.00)

For a simple, concise, thorough textbook in which a great deal of redundant, theoretical and historical material has been eliminated, Yater's *Fundamentals of Internal Medicine* meets the need. As a text for medical student or general practitioner, it is ideal.

The book is profusely illustrated with valuable photographs. Many tables of differential diagnosis and therapy are included. Coverage of the cardiovascular systems is superb. Notable in the text are brief discussions of the diseases of the skin, eyes, nose, throat, nervous system and mind. A chapter on chemotherapy and antibiotic therapy includes the latest advances. Other sections such as the reticulo-endothelial system, endocrinology and allergy seem rather sketchy and insufficient. The final section on "The Physician Himself" represents a wonderful analysis of the art of medicine and medical ethics by one of the most experienced men in the field—Wallace M. Yater.

Marvin C. Becker, M.D.

The Compleat Pediatrician. Wilburt C. Davison, M.D., 6th ed. Duke University Press. Durham, North Carolina, 1949. ($4.75)

Two years ago this reviewer reported on the fifth edition of this pediatric stand-by and characterized it then as "looking like a cross between a telephone directory and dictionary; and by the conscientious practitioner, it will be used just as often". It is a practical handbook for any doctor who treats children. Arrangement is by symptom. Thus the physician, can look up the presenting complaint—convulsions, or nose-bleed, or loss of weight, or whatever it is, and find a list of the disorders which might provoke the symptom. To each word on the list, there is affixed a numeral which refers the reader back to a description of the disease including treatment. It covers in compact, practical fashion, more than 300 diseases, and includes item-by-item descriptions of technic in a variety of laboratory and therapeutic procedures. Also included are useful data on diets, drugs, prescriptions, child guidance, preventive medicine, and instructions for taking histories and doing examinations. It takes a little while to get used to the arrangement, with its maze of index numbers, abbreviations, and cross references, but once the reader has mastered the system, it will become as comfortable and reassuring a reference work as a well kept and well thumbed private note-book. "In contrast to many pediatric books, which resemble a hoop skirt in covering the subject without touching it," says the author, "this book is like a brassiere in touching only the high spots". To which comment, this reviewer can say "amen".

Ralph Neil Shapiro, M.D.

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **September, 1949** **No. 9**

TODAY there are thousands of workers whose prime objective is the control of tuberculosis. A method of attaining that objective is known. It consists of finding and persuading each person with tuberculosis to seek medical care and providing his physician with the knowledge necessary to treat the disease effectively. In it is included restoring the individual to the fullest possible usefulness, and protecting others from contagion.

THE PRESENT STATUS OF TUBERCULOSIS CONTROL

The control of tuberculosis involves acquiring new knowledge—research; and distributing existing knowledge—education. Education involves the public and the medical profession. The doctor in his office is impotent unless the patient comes to him. The patient is in jeopardy unless he knows that he is a patient, and unless the doctor knows how to treat him. These principles are inseparable. The physician and the health educator are mutually dependent and inseparable allies in the campaign against tuberculosis.

One of the ways in which the progress of tuberculosis control is being retarded is putting the emphasis upon accomplishments, not upon the unfulfilled tasks. To believe the job is nearly done is dangerous, and the facts should be faced.

Forget about the reduction in tuberculosis mortality statistics for a moment and look at the present situation! Tuberculosis, today in the United States, remains the most important chronic fatal disease to be caused by a "germ," the most important of all diseases of young people, the most important of the truly preventable diseases.

More than this should be said—much more. Mortality statistics list tuberculosis in comparison with groups of other diseases. "Heart disease" is not one disease but many. It includes arteriosclerotic heart disease of the aged, rheumatic heart disease of the young, hypertensive heart disease of middle life, infectious diseases of the heart, and many rarer conditions.

Cancer is not a single disease, presenting one medical problem. Yet the various cancerous diseases are grouped for comparison with tuberculosis. Most cancer appears to be a degenerative disease of older age; most deaths from heart disease are incident to old age. Everyone has to die some day from some cause and these degenerative conditions will increase as our people live longer and longer lives.

Tuberculosis is also displaced on the list of causes of death by accidental deaths of all types —obviously an unfair comparison. Tuberculosis would rank higher if mortality tables grouped diseases properly. If listed according to preventability, or to age groups affected or to years of potential life lost, or to actual cost in dollars, or according to sorrow, hardship and frustration caused—there would be less complacency and more alarm at the present tuberculosis death rate.

If causes of death were listed according to organs affected, diseases of the lungs would stand high on the list. Diseases such as tuberculosis, asthma, bronchiectasis and pneumonia stand high. Pulmonary embolism and, among males, cancer of the lung are also extremely important.

There has been so much talk about scientific medicine that some people seem to think of medical practice as a technological pursuit—applying fixed formulas to compute the diagnosis. *Medicine is a ministry as well as a science, and the practice of medicine a calling as well as an occupation.*

Patients are people. They have intellect, imagination and emotions—they have souls. No two people react alike to the same disease and few human miseries are caused entirely by pathologic alterations of body structure. Symptoms are almost always caused by a blend of pathology with fear, apprehension, and perhaps fatigue. The majority of persons seeking medical advice have no significant organic disease. Their symptoms are due to misbehaving organs, not diseased organs. These complaints are called "functional" as distinguished from "organic" or structural defects. But functional complaints are real, not imaginary, and often they are curable. And when organic disease strikes—tuberculosis, heart disease, cancer—the emotional aspects, the functional disturbances are as real and often more disturbing than are the pathologic alterations. Even major surgery is to the normal person frequently more of an emotional than a physical experience.

The modern school of medical practice believes in full and complete instruction of the patient. He not only may, but must know the facts, good and bad. He is not the subject of medical treatment but the partner of his physician and shares the task of achieving recovery. Patients see their X-rays; they know about laboratory tests; they know the diagnoses and something of the future.

The modern physician sees a greater duty than that of restoring to a state of health people who feel ill. He advises normal well people how to remain well, happy, and productive. He is learning how to examine well people and to avert many of the tragedies which occur when his advice is sought belatedly. Through his knowledge of personal hygiene, immunization, nutrition, and the nervous system, he may prevent disease and interpret functional symptoms.

In the prevention of disease the physician has allied himself with public health experts, field workers, and executives. These are trained educators, inspired and diligent crusaders, who not only work beside the physician—they work ahead of him. They make possible the application of his skills and arts to vast numbers of people otherwise beyond the doctor's reach. Physicians should know more of these professional allies and the knowledge and training which they may possess. He should use them as consultants in medical problems of social and community significance.

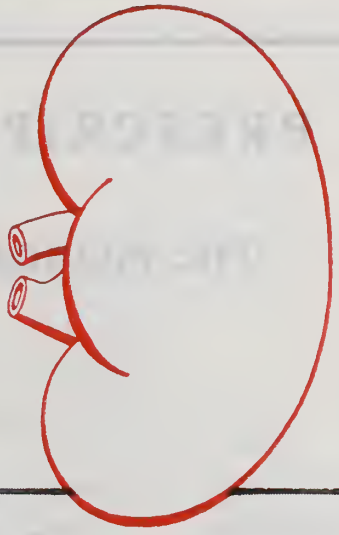
We are now on the right track to achieve the great task remaining—the control of tuberculosis. There are vastly more effective methods of detecting and treating tuberculosis and other chest diseases than ever before. The relative roles of health educators, epidemiologists, sanatorium physicians, private practitioners is beginning to be seen quite clearly. Let no disrupting revolution in medical practice prevent this major achievement of the progressive American system of medicine.

The Present Status of Tuberculosis Control, H. Corwin Hinshaw, M.D., National Tuberculosis Association Bulletin, July, 1949.

SUPPLIED BY
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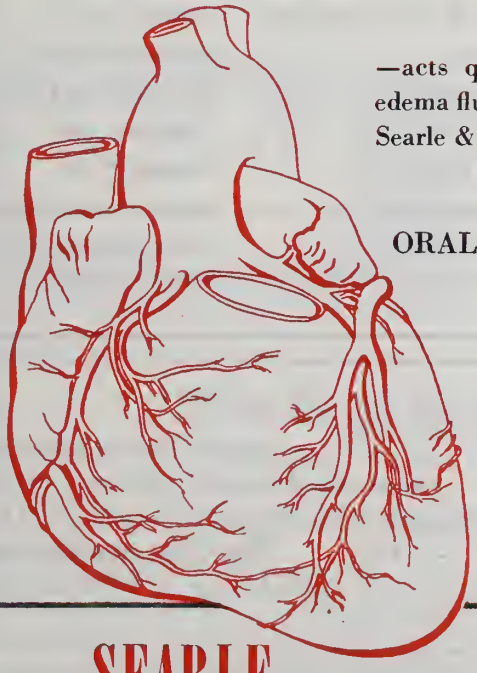
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1. Brown, W. E., and Bradbury, J. T.: The Effectiveness of Various Diuretic Agents in Causing Sodium Excretion in Pregnant Women, Am. J. Obst. & Gynec. 56:1 (July) 1948.

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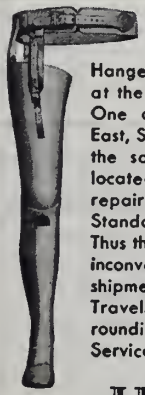
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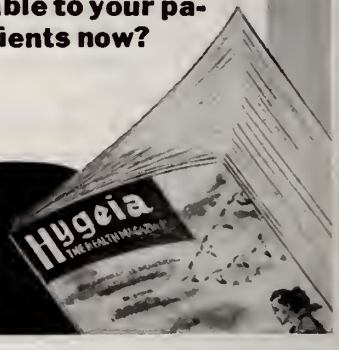
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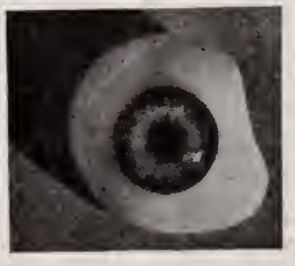
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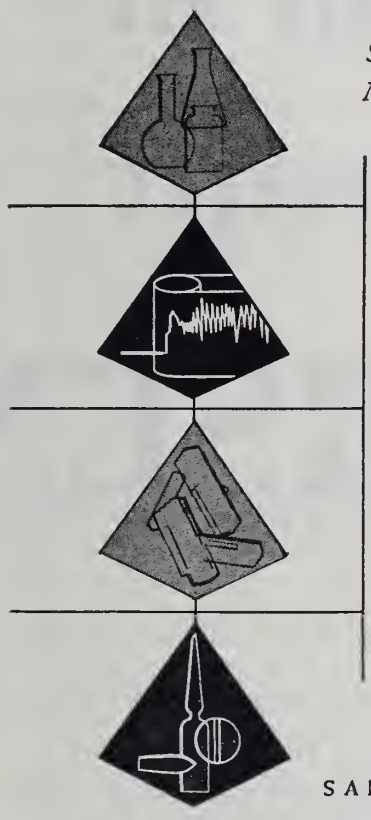


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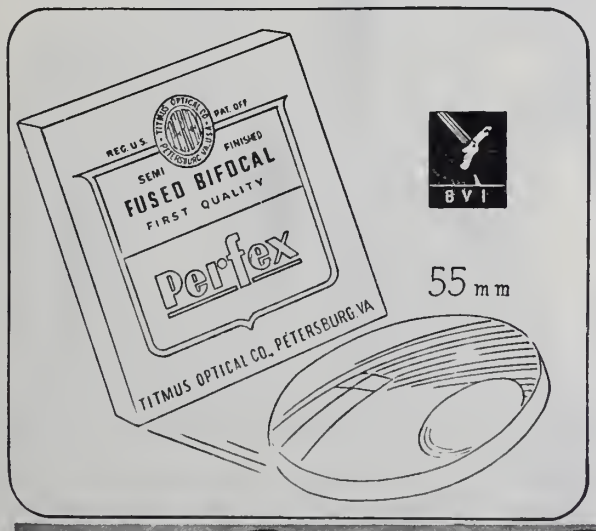
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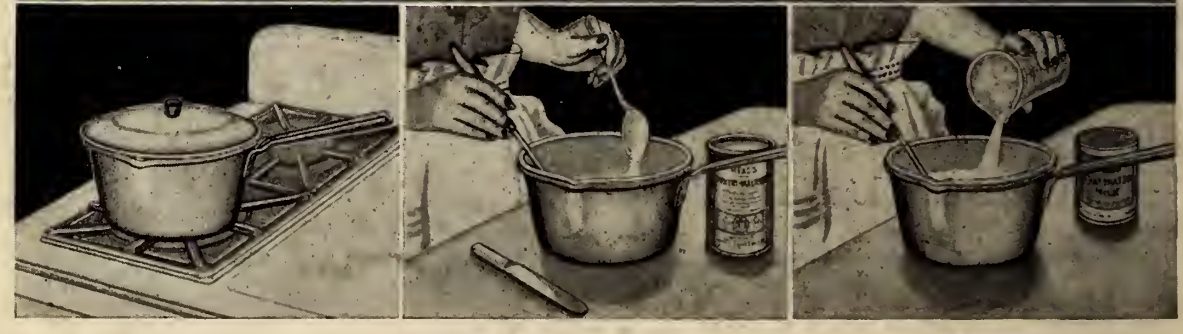
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As printed in International Clinics, Vol. 1, page 199, March 1937

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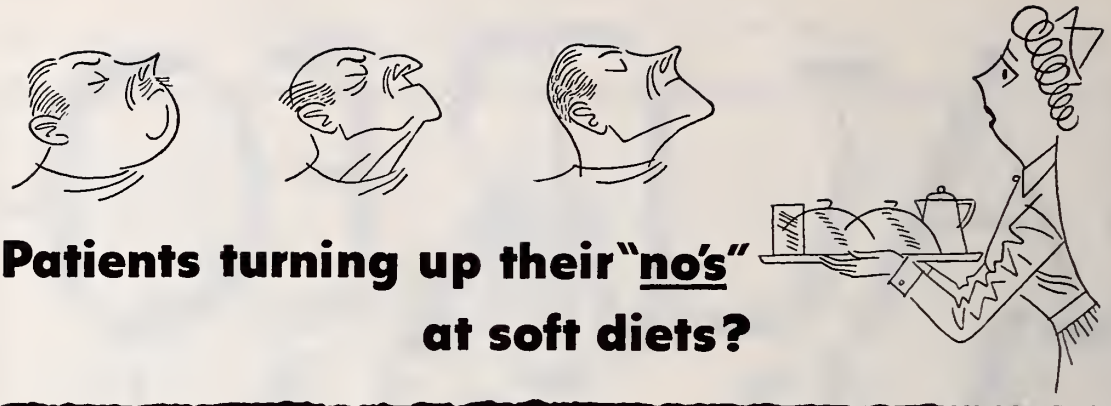


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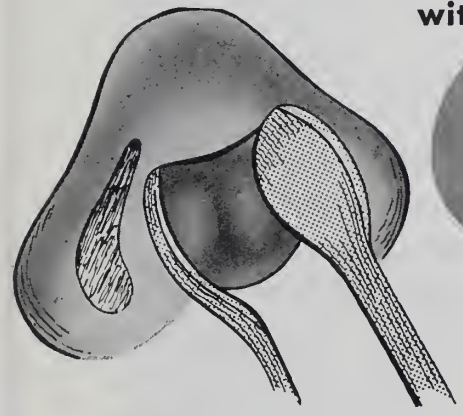
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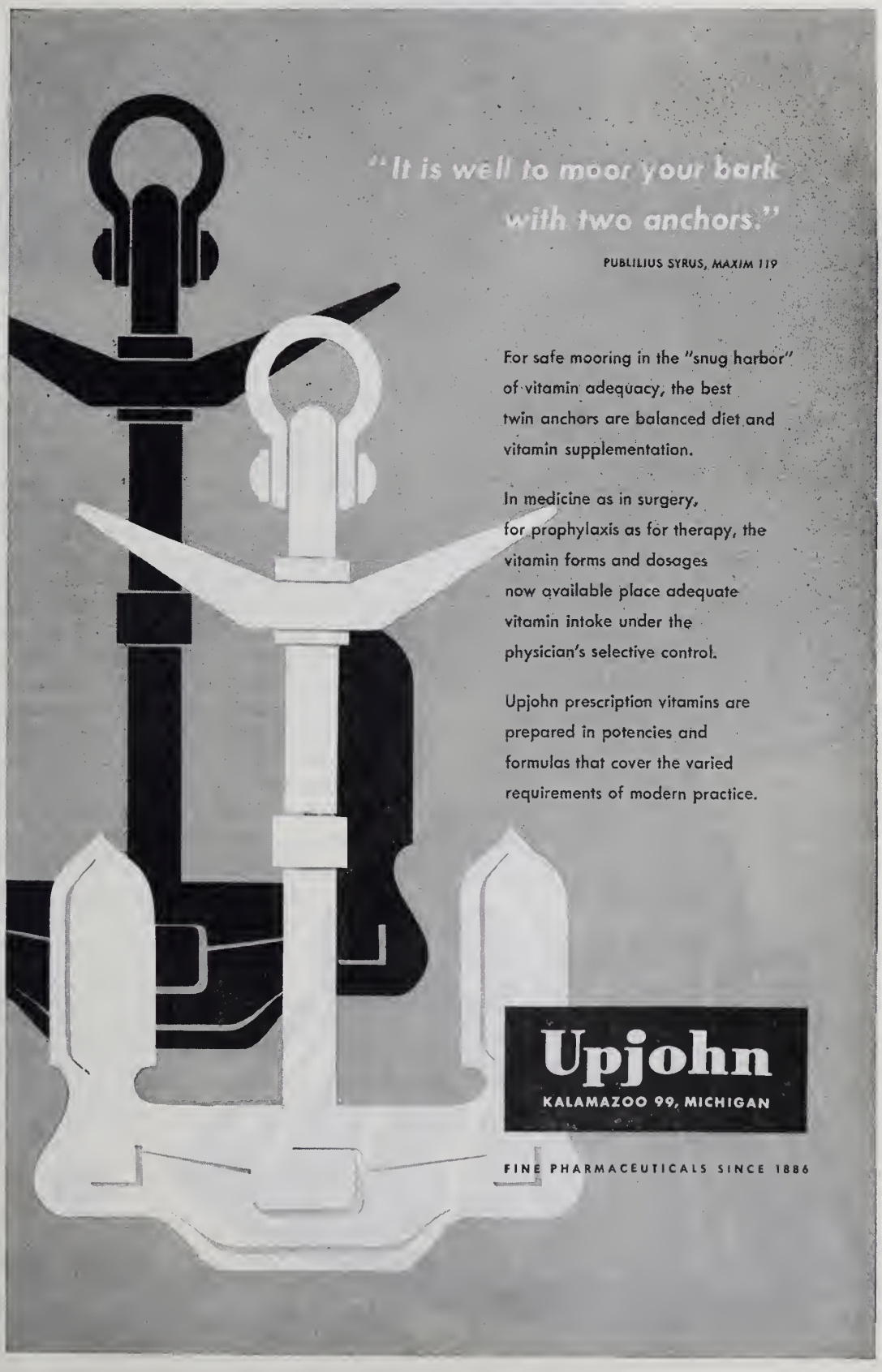
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References: 1. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:442, 1936.
2. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:452, 1936.
3. Sahyun, M.: *Am. J. Dig. Dis.*, 13:59, 1946.

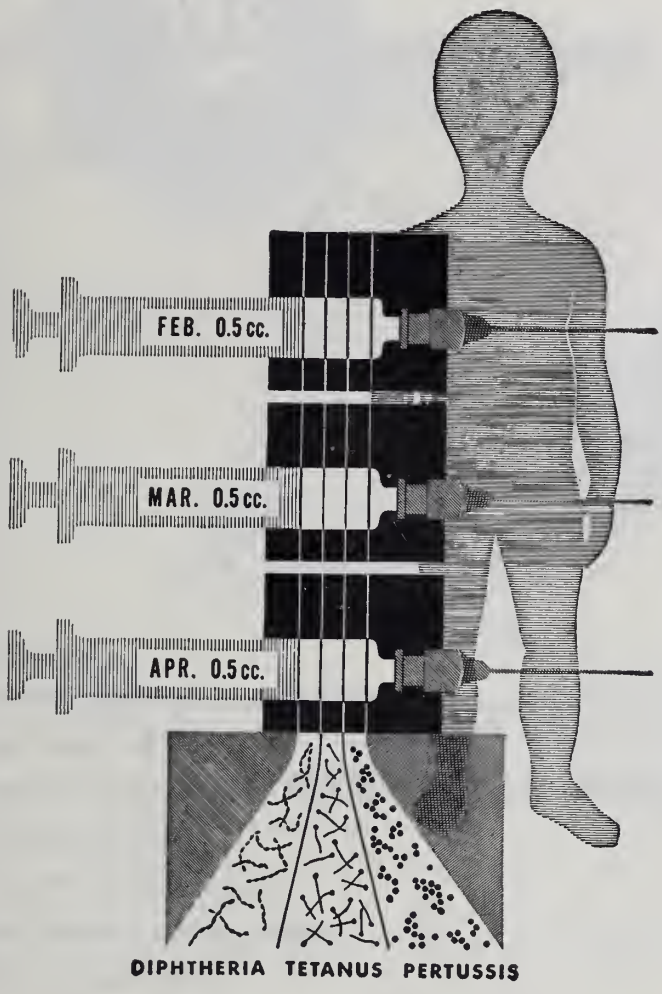
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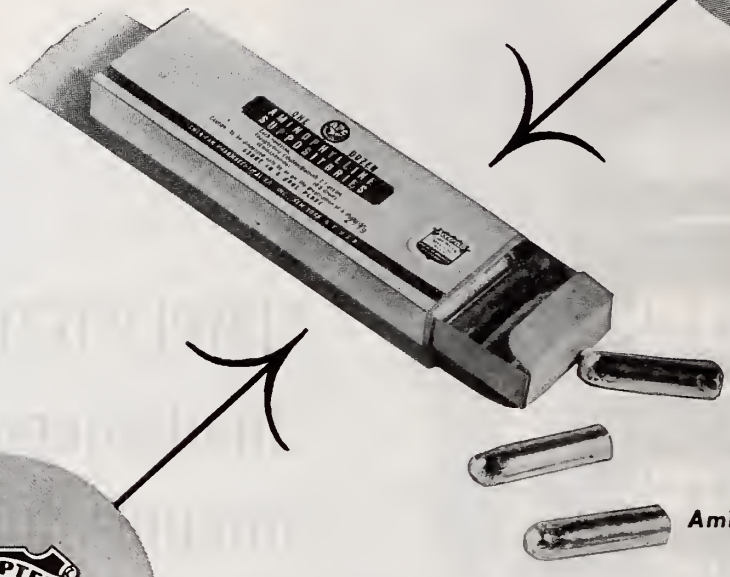
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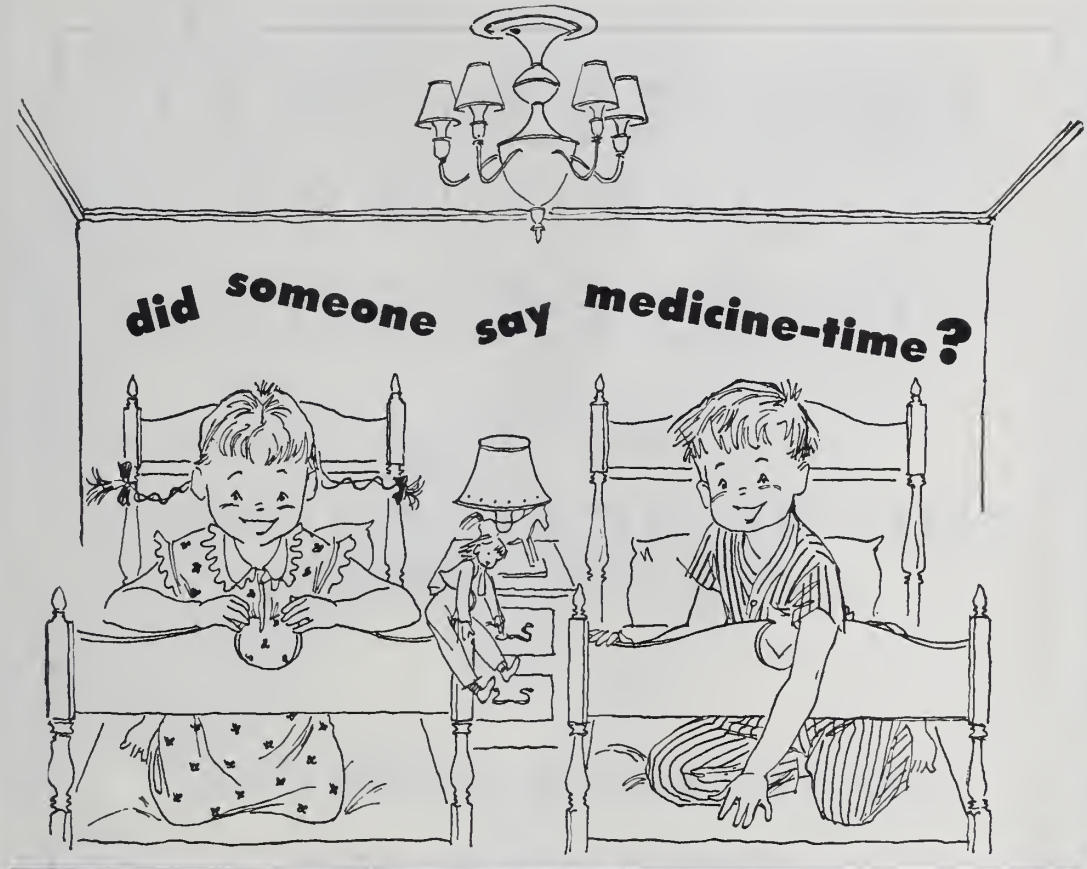
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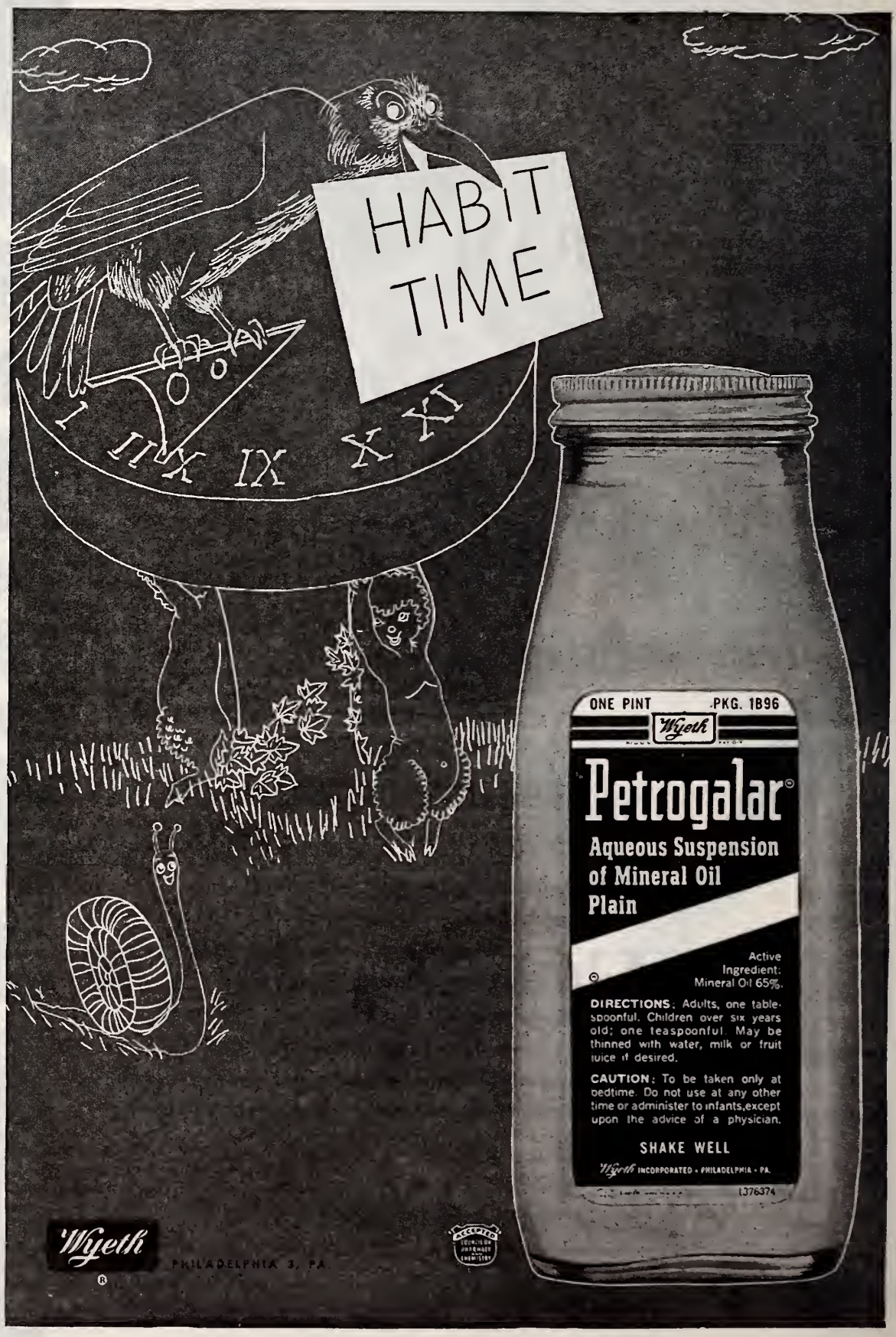
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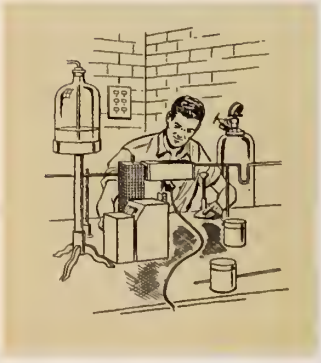
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THOMAS K. LEWIS, M.D., 1887-1949

When Medical-Surgical Plan was set up in 1942, it was realized that the success of the project depended in a large measure on the caliber of the man selected to head its board of trustees. But it didn't take much searching to find the right man. He was, of course, Dr. Thomas K. Lewis, who had just finished a brilliant term as President of The Medical Society of New Jersey. Back in 1932 he was comparatively unknown in northern New Jersey. The following year he undertook a survey of the problem of the distribution of medical care, and did it with such quiet and powerful effectiveness that the rest of the state discovered something that South Jersey had known for a decade. They discovered that here was a man who managed to be a respected practitioner, a serious medical scientist, a force in civic affairs, and a profound student of economics, all in one.

Every once in a while a doctor comes along who seems somehow to be chosen president of every organization he joins. Usually he attracts attention because of a certain dramatic colorfulness. But Tom Lewis won attention the hard way. He never made much noise. But he had a way of digging into a problem until he had mastered it. He had a manner that won universal respect. Your editor has a vivid recollection of this. Dr. Lewis was President of the state society in our first year as editor, and we have never before, or since, seen a man who could be so effective so quietly. Every one else sensed this too, and it is not surprising that at one time or another, Dr. Lewis was president or chairman of his city's

† Deceased.

medical society, the Camden County Society, the Board of Governors of the Medical Service Administration, the Lions Club of Camden, the Board of Trustees of The Medical Society of New Jersey, the Physicians' Automobile Club, the medical service of the Cooper Hospital, our state society's medical practice committee, the Medical-Surgical Plan of New Jersey, and a half dozen other civic and scientific groups.

He was a member of the great legislative body of American medicine—the House of Delegates of the A.M.A. In fact, he was our senior delegate there. Like so many busy men, he managed to do many things at once and do them all well. He maintained a large private practice, he attended to our state society's representation in the A.M.A., he piloted both the Medical Service Administration and the Medical-Surgical Plan. He was one of the few men in the country who had a mastery of both the actuarial concepts of health insurance and the vagaries of the human electrocardiogram.

Perhaps this makes him sound like someone too ethereal to be human. But Tom Lewis was human, all right. He was, for instance, an expert canoeist, a better-than-average player of athletic games. He was probably one of the few doctors in this country who knew how to play cricket. He had a subtle and genial sense of humor. To avoid being a back-slapper, and at the same time to appear warm and outgoing to people, is quite an accomplishment. But Tom Lewis did it — and, as with everything else, he did it well.

As a look at the record will show, it will take a lot of men to fill all of his shoes.

THE DIABETIC AND HIS JOB

As doctors we say that the average diabetic can live a normal and useful life if he cooperates intelligently in treatment. This is true enough, but the fact remains that the diabetic has trouble in being accepted in a job. Large employers demand a preliminary medical examination, and often refuse to employ the diabetic. When it is discovered that a worker has diabetes, the personnel office begins to worry about possible accidents during shock, about the effect on their compensation rates, about the possibility of absenteeism because of illness. Now it may be argued that this is none of the doctor's business, that the physician is a therapist not an employment agency; that medicine is a biological science not a social science. Such an attitude today, however, is — or should be — obsolete. Medicine *is* a social science. To tell the diabetic that he is well controlled and that he can now return to full employment is sterile and sardonic advice, if he cannot get a job. It would seem to be part of our duty to educate employers to the fact that, except in a few hazardous spots, the controlled diabetic is a safe workman. The doctor's help to the handicapped is not limited to the operating room or the medical office. It can extend, indeed it must extend, to helping the patient fit into the community. This entails a job of public education. Such a mission is a proper function of the medical practitioner, acting individually or through his organization. A disproportionate number of physicians are themselves diabetics, functioning normally as medical practitioners, and free from any prejudice on the part of their colleagues. We have a duty to help our diabetic patients enjoy a similar opportunity in their vocational arenas, too.

ORIGINAL ARTICLES

LEUKOCYTE AND DIFFERENTIAL BLOOD COUNTS AS A DIAGNOSTIC AID IN SOME COMMON DERMATOLOGIC PROBLEMS *

C. C. CARPENTER, M.D., Summit, N. J., and Morristown, N. J.

During the past ten years my attention has been focused increasingly on the use of leukocyte and differential blood counts as a rapid aid in determining the underlying causes of many of the more common skin diseases.

There have appeared in the literature reports concerning the value of blood counts not only as an aid in the diagnosis of some skin diseases, but also in determining allergic reactions. Among the three most important of these were Vaughn's report [1] proving that a drop in the leukocyte count following the ingestion of certain foods was an allergic phenomenon rather than due to liver dysfunction; Andrews [2] demonstrating that a pustular bacterid was accompanied by a leukocytosis and a relative granulocytopenia; and finally, the proof by Young [3] and Klumpp [4] that long continued administration of sulfonamides and amidopyrine may incite an agranulocytosis.

Other authors have demonstrated interesting patterns in blood counts connected with many skin eruptions. A persistent leukocytosis has been used as a diagnostic aid in the lymphoblastoma group by Jackson and Parker,[5] which makes this determination a worth-while procedure in many ill-defined, persistently pruritic eruptions. On the other hand, leukopenia has been found to be a characteristic of disseminate lupus erythematosus, and is frequently observed, as well, following ingestion of benzol, sulfonamides, barbiturates, amidopyrine, dinitrophenol, bismuth, and quinine.[6] In more than 40 per cent of his patients with intolerance to bismuth, the arsenicals, gold compounds, and faudin, Astrachan [7] observed a relative lymphocytosis. Erythema multiforme and nodosum were classified by Noojin and Callaway [8] as a form of bacterid and, like Andrews,[2] they demonstrated an elevation of the leukocyte count above 10,000. Aggler found complete blood and platelet counts of much value in determining the types of purpura.[9] The accuracy of Vaughn's "leukopenic index" in the diagnosis of food allergies has been verified by Hanson,[10] and Pohle [11] but, in addition, the latter also demonstrated a drop of 20 per cent in the blood platelet count accompanying the fall in white blood cells. There are still many [12] who find a characteristic blood count of value in differentiating the various forms of exanthemata. In chickenpox there is leukopenia with lymphocytosis and lymphoblast formation; whereas in smallpox there is leukocytosis with lymphocytes predominating and absence of eosinophils; in measles, increased lymphocytes; in scarlet fever, an eosinophilia.

To make the leukocyte and differential count a useful procedure in dermatologic diagnosis, normal blood count values must be more strictly interpreted. These patients are not usually dramatically ill, and variations from the mean normal would naturally be expected to be less. Also, the reports in the literature and my personal experience tend to minimize the physiologic effects of digestion, cold baths, and muscular exercise on the leukocyte count. Even such outstanding authorities as Gradwahl and Wintrobe [13] deny the existence of any "digestive leukocytosis", and hold that the leukocyte effect of muscular exercise lasts only a few minutes. Moreover, in a group of naval personnel (tested by me [14] with hot or cold baths for suspicious physical allergy) there was no appreciable change in the before- and after-counts. As practically all the blood counts made in this study were done in the morning, we avoided the possibility of any late afternoon increase in the white cell count.

In determining the normal leukocyte count, I consulted standard laboratory manuals [15] which showed that the normal number of leukocytes varies between 5000 and 8000 cells, with a definite upper limit of 10,000 cells; average normal count being 7500 white cells. In interpreting this normal range, I take into consideration the individual's physical habitus, as I believe that a total white blood cell count of above 8000 is too high for the average anemic 110-pound housewife and, conversely,

* Presented at the Dermatology Section, 183d Annual Meeting, The Medical Society of New Jersey, April 25, 1949.

a 5000 leukocyte count is too low for a 175-pound healthy male. This impression of abnormality in the total leukocyte count is further enhanced when it remains repeatedly the same and is accompanied by a differential count in which there is an increased percentage of neutrophils and eosinophils, or lymphocytes above their usual normal values.

For the average adult in good general health, the differential count should comprise from 50 to 75 per cent neutrophils, with an average of about 61 per cent. The number of lymphocytes should vary between 21 and 35 per cent, with an avearage of about 28 per cent, and there should be no more than 4 per cent eosinophils in the differential count, with a general average of about 2.4 per cent for all patients.

It was Shaffer [16] who first coined the word "syndrome" as applied to those common skin diseases that have diverse etiologies and yet appear exactly alike. Wiener [17] refers to these as among the "non-specific dermadromes" and points out that they are the cutaneous response to heterogenous pathologic stimuli which, because of the skin's limited means of expression, produce identical skin lesions. Sutton and Sutton [18] state that among common skin diseases known to have their origin alone, or in combination, from foods, drugs, bacteria, fungi, *et cetera,* are the following:

Erythema multiforme
Erythema scarlatinoides
Erythema nodosum
Urticaria
Eczemas
Lichen chronicus simplex
Pompholyx
Dermatitis medicamentosa
Eczema seborrhoicum
Purpuras
Infectious eczematoid dermatitis
Recalcitrant vesicular and pustular eruptions of the hands and feet
Pruritus ani

Among these diseases, occurring in adults only, we have made our studies of the possible help to be derived from the leukocyte and differential counts in establishing whether the principal offending agent is of bacterial, food or medicinal origin. No blood studies are reported in which the causative agent was considered to be due to fungi or their toxins. Furthermore, the blood count reports utilized were obtained from several hospitals, diagnostic laboratories, and two naval medical facilities.

BACTERID GROUP

Criteria for the diagnosis of pustular bacterid of the hands and feet, as implied by Andrews and Machacek,[2] were an increased leukocyte count, a moderate granulocytopenia, increased sensitivity of the "tuberculin type" to intradermal injections of bacterial toxins, and improvement in the skin eruption by the removal of foci of infection. To these, Schaffer [16] added the "Herxheimer-like" effect produced in bacterid syndromes by the rapid liberation of toxins when sulfathiazole was given by mouth, or as the result of an overdosage of a bacterial vaccine given by injection to a subject sensitive to these toxins. Furthermore, I would like to add some criteria from my own and co-workers' observations, viz., "Herxheimer-like" effects from the use of excessive dosages of pencillin;[19] a rapid improvement in the skin eruption when gradually increasing dosages of sulfonamides [20] or penicillin [21] are used, and a favorable response to desensitization with bacterial vaccines.[20]

With a diagnosis of bacterid based on these criteria, a study was made of the blood count of 105 subjects who were suffering, in most instances, from a prolonged or recurrent attack of one of the previously mentioned skin diseases. In these individuals the skin eruption had responded favorably to therapeutic trial tests with gradually increasing dosages of sulfonamides or penicillin, to the removal of foci of infection, or desensitization with bacterial vaccines to which they were sensitive. Among these subjects, total white cell blood count was above the "average normal" of 7500 cells in slightly more than 90 per cent of the patients whose skin disease was considered to be caused by bacteria, their products, or their toxins. The neutrophil count was also above the normal average in 65 per cent of these patients, but never reached as high a level as would be expected had their accompanying total counts been taken into consideration. This could be interpreted as a relative granulocytopenia, as

first mentioned by Andrews.[2] The lymphocyte count was of high normal value in 55 per cent, and the eosinophil count was above the mean normal in half of these patients. In many, the blood counts returned to a satisfactory level following the administration of penicillin or the removal of foci of infection.

FOOD GROUP

There are not as many diagnostic criteria applicable to patients whose skin diseases have their origin in sensitivities to foods. Rowe [22] has probably studied food sensitivities more intensively than any other modern allergist. He suspects this form of allergy in all patients who have a previous or family history including asthma, allergic rhinitis, urticaria, atopic or contact eczema, migraine, etc. He depends more on elimination diets than on skin testing for accuracy in establishing the diagnosis. He believes that normal eosinophil counts do not exclude the possibility of food allergy, although an elevation of this count from 4 to 10 per cent is frequently found in these patients. Walzer [23] states that food hypersensitivity may begin in adults, but its inception is much more frequent in childhood. Another criterion recently reported by Coca [24] is the acceleration of the pulse rate above a maximum normal level following the ingestion of an allergic food.

The best evidence that a skin eruption is being produced by foods is in the improvement obtained in the symptomatology and cutaneous lesions when the patient abstains from ingestion of substances to which he is sensitive, and in the development of exacerbations of the affection when such foods are again taken.

Among our patients suffering from several types of the previously mentioned skin diseases, were 42 in whom the cause of their skin eruption was established as originating in food allergy. We justifiably refer to this group of food-sensitive subjects as "the walking leukopenic indices", for in 85 per cent of them the total white-cell blood count is below the normal average. Moreover, the neutrophil count is below the normal level in 75 per cent, but a lymphocytosis is present in 80 per cent of these patients. The eosinophil count was above the average normal in 85 per cent of our patients. For some unexplainable reason the ratio of eosinophils is lower in patients who have higher lymphocyte counts. In fact, we have noticed that as the foods to which the patient is sensitive are gradually withdrawn, there is, at first, a lowering of the lymphocyte count and a slight rise in the eosinophil percentage. These changes in the blood picture return to normal when the offending foods have been eliminated, thus making this test a useful procedure in checking the patient's progress.

DRUG GROUP

There are even fewer diagnostic criteria for eruptions produced by medicinal agents than for those from foods. Although drug eruptions may assume every known form of skin and mucous membrane disease, they are relatively infrequent, and certainly much less common than food eruptions. In fact, their incidence at the Skin and Cancer Hospital in New York City [25] was only 0.15 per cent of all admissions.

The only positive test of diagnostic significance, according to Sulzberger,[26] is the reproduction or exacerbation of the skin eruption by the frequently dangerous "ingestion test"; or by finding an occasional positive patch test in the eczematous types, and an infrequent positive cutaneous test in some of the urticarial types.[27] Another criterion [26] (particularly significant in the so-called "Herxheimer-like" reactions) is the fact that a drug eruption does not appear for at least six to thirteen days following the drug's initial administration. Walzer [27] mentions the frequent association of a family history of atopy in patients hypersensitive to drugs, but is unable to demonstrate any reagins in their blood, so consequently passive transfer tests are not possible.

In our very limited group of 17 patients whose cutaneous lesions, we believed, were due to drug sensitivity, were found examples of recurrent and fixed skin eruptions which simulated many of the common skin diseases, and produced by such frequently used drugs as aspirin, sedatives, ephedrine, arsenicals, sulfonamides, etc. We did not include any erup-

tions which were believed to be due to the administration of hormones or vitamins. The blood counts on the patients verify, for the most part, the findings [3] of the other investigators [4] to which I referred earlier in this paper.[7] A leukopenia existed in 85 per cent, but a lymphocyte count higher than the normal average was present in all my patients. As would be expected, there was a corresponding decrease in the number of neutrophils. The eosinophil count was found to be above the normal average in only 45 per cent.

HERXHEIMER-LIKE REACTION GROUP

While the foregoing discussion deals with the manifestations of hypersensitivity to drugs, there should be taken into account a form of reaction to the administration of antibiotic substances that not only involves the skin, but is frequently accompanied by internal symptomatology. Such a reaction naturally raises the question whether this is a manifestation of true hypersensitivity to the antibiotic or whether the administration of the same substance can be safely continued, or even resumed at a later date, without jeopardizing the patient's health.

Shaffer [16] drew attention to this type of reaction in patients previously sensitized by local applications of sulfathiazole who later reacted to the parenteral administration of this same drug. He apparently did not believe that this was entirely an atopic phenomenon and referred to it as a "Herxheimer-like reaction", since it differed from the well-known reaction originally described in the treatment of syphilis, as there was no aggravation of the primary focus. He was supported in this belief by Green [28] and myself [20] when we encountered this reaction from both penicillin and sulfonamides in the same individual who, according to accepted criteria, could not have been previously sensitized. Romansky [29] classifies these reactions as toxic rather than allergic. It therefore, seems to be the consensus that the "Herxheimer-like reaction" is not a contraindication to continued or future treatment with sulfonamides or penicillin. From our studies this reaction may be differentiated not only by its symptomatology, but also by the fact that there is an increase of the white blood cell count of from 2000 to 5000 cells over the counts taken just prior to the administration of the antibiotic. This is in distinction to the diminished leukocyte counts observed in true drug hypersensitivities.

COMMENT

To evaluate properly the diagnostic aid given by leukocyte and differential counts, it is well to keep in mind the comparative values of each component part of the count. In 85 per cent of those patients whose skin eruptions were due to bacterial hypersensitivity, the total white cell counts are above the usual normal variations. The food- and drug-sensitive patients had total counts that closely paralleled each other, but they were above the usually accepted limits of normal in only 5 per cent. For the most part, they were in the lower portion of the normal range and below the lowest accepted levels in 30 per cent.

In the differential portion of the blood count, the proportion of neutrophils was highest in the bacterid group of patients, but did not reach the heights expected in comparison with the total white cell count, and thus can be interpreted as a relative granulocytopenia. Also, the neutrophils were generally higher in patients whose skin eruption was due to food allergies, than in those with skin syndromes due to medicinal agents. In fact, in the latter group the neutrophil count was below the usually accepted lower limits or normal in 70 per cent of the patients.

It is in the comparative values of the lymphocyte counts that we find the most aid in differentiating patients with drug eruptions, for, in addition to a leukopenia, a lymphocytosis higher than the accepted normal range is present about 80 per cent of the time, and it is at all times higher than in those patients whose skin eruption and leukopenia are caused by food hypersensitivity. In the bacterid group of patients the lymphocyte counts fall, for the most part, within the normal range.

In comparing the percentages of eosinophils in the differential count, I am in accord with other authors who do not find much of diagnostic significance in their values. Highest

levels were usually attained in patients with bacterial sensitivities. But the count was consistently higher than normal most often in those with food allergies, being above or at the upper level of normal variation 80 per cent of the time. The lowest proportion of eosinophils was found in the patients with drug eruptions.

SUMMARY

1. Leukocyte and differential blood counts may be used as a rapid aid in differentiating those common skin eruptions having their origin in bacterial, food or medicinal agents. Thus, a proper program for therapy may be more quickly initiated.

2. A characteristic blood picture of a patient with a bacterid eruption is a leukocytosis with a relative neutropenia, and a high normal lymphocyte count.

3. A leukopenia is present in both the food and drug eruptions; but in patients with drug sensitivity, the lymphocytosis is higher and about equals the proportion of neutrophils.

4. The eosinophil counts are not characteristic, although they are elevated in about 50 per cent of these patients.

5. The return of the blood count values to more normal levels may be used as an index of the patient's improvement in response to therapy.

A bibliographic list of 29 citations appears in the author's reprints.

129 Summit Avenue, Summit
181 South Street, Morristown

DISCUSSION

MORRIS H. SAFFRON, M.D., Passaic, N. J.: Dr. Carpenter's paper stimulates renewed interest in a simple, readily available laboratory procedure which may be of value in the differential diagnosis between common dermatoses. Recent literature pays scant attention to the hemogram as a diagnostic aid, and Sutton aptly points out that "whereas the differential count is requisite to thoroughness in a hospital it is not routinely done in private practice". Such comprehensive monographs as Goldsmith's and McKenna's likewise offer little of substance in this matter. Cases are frequently presented before dermatologic societies which, although thoroughly studied in other respects, barely mention and often entirely ignore the hemogram.

Perhaps it is the lack of consistently uniform leukocyte counts in many clinically characteristic skin disorders which has tended to relegate this procedure to secondary status. Certainly the variation between individual cases is undeniably great. Recently I saw two cases of erythema multiforme of the recurrent type in which the white cell counts differed widely. A young man who gave a history of frequent attacks of tonsillitis and mild joint pains had a count of 7800 with a normal differential; a somewhat older woman with iris-like lesions of the hands and few bullae of the oral mucosa had considerable leukocytosis (13,400), with 83 per cent polymorphonuclears. Secondary and intercurrent infections may readily distort a characteristic picture. In the most recent revision of his text Andrews no longer emphasizes a relative granulocytopenia as characteristic of pustular bacterid. He states that "during fresh outbreaks the white blood count may show a leukocytosis which ranges from 12,000 to 19,000 cells with 65 to 80 per cent polymorphonuclears"; and elsewhere that in relation to a proved focus of infection pustular bacterids are "sometimes accompanied by leukocytosis".

Rostenberg found a relative granulocytopenia to be characteristic of eruptions produced by such drugs as aminopyrine, arsenic, gold salts and thiouracil, but curiously enough the granulocytopenia was not noted in eruptions ascribed to antipyrine, atabrine, the barbiturates, the salicylates, the sulfonamides and other compounds. The influence of many of these very drugs in altering the hemogram must not be overlooked. A referred patient with severe dermatitis herpetiformis had been kept under control by sulfonamides over a period of two years. His red blood count was 5,100,000; the eosinophils only 4 per cent in an otherwise normal leukocyte count. My attempt to withdraw the sulfapyridine resulted not only in an immediate exacerbation of symptoms, but two weeks later there was a slight drop in the red cells and an eosinophilia of 17 per cent. He is now back on the drug and presents a comparatively normal blood picture.

This fine paper should be followed by further, carefully standardized studies of typical early, and untreated cases in order to establish more definitely the possible value of the differential count in dermatology.

NOVEMBER 2—KEEP IT OPEN

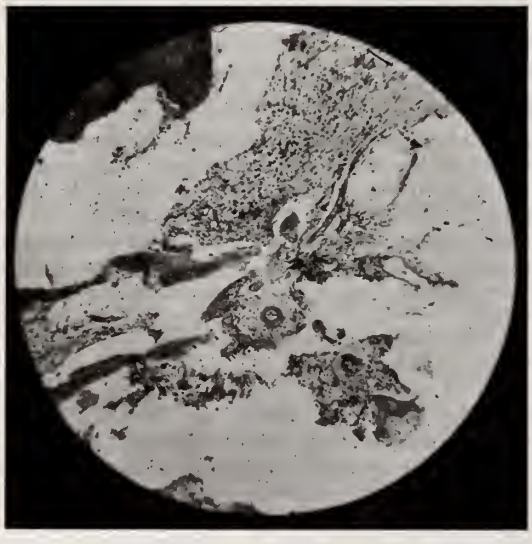
Mark it on your calendar now: Wednesday, November 2. Jersey City will play host to The Medical Society of New Jersey at its Fall Clinical Conference. Plan to attend this practical, down-to-earth, one-day refresher course tailor-made for the medical clinician. Detailed program will be mailed to the membership this month.

OSTEOMYELITIS OF A VERTEBRAL SPINOUS PROCESS FOLLOWING LUMBAR PUNCTURE *

Raphael R. Goldenberg, M.D., and Sidney Brooks, M.D., Paterson, New Jersey †

The routine operation of lumbar puncture is used so frequently that there is a tendency to overlook the possible complications. Pease [1] Milward and Grant,[2] and Gellman [3] have shown that the intervertebral disc or even the vertebral body may be injured by the lumbar puncture needle. That osteomyelitis of the spine may follow lumbar puncture has been recorded by Findlay and Kemp,[4] and by Martin.[5]

The following case is presented in the belief



Microscopic section X100 showing necrotic bone spicules and chronic inflammatory tissue.

that it is one in which the spinous process of a lumbar vertebra was traumatized and infected during a lumbar puncture.

A male, aged 37, was examined at The Paterson Board of Health, on October 10. Because of suspected syphilis, a lumbar puncture was performed. There were no complaints of pain or discomfort following this procedure. The patient was transferred to another hospital for intensive anti-luetic therapy. During this hospitalization (eleven days) a second lumbar puncture was done on October 13, with considerable difficulty. Bloody spinal fluid was obtained. Three days later the patient began to have pain in the lower back, which gradually increased in severity. On November 4 (twenty-two days after the second lumbar puncture) he was admitted to St. Joseph Hospital complaining of constant, severe, throbbing pain in the lower back. He was in so much pain that he was unable to move about in bed. There was marked paraspinal spasm. The spine was maintained in fixed hyperextension. Tenderness was sharply localized to the region of the spinous process of the fourth lumbar vertebra. There were no abnormal neurologic signs. The urinalysis was negative. The sedimentation rate was 31 in one hour (normal 8).

Expectant therapy in the form of antibiotics, rest on a convex frame, morphine sulphate and demerol failed to control the pain. Local swelling, induration and tenderness increased. The temperature ranged between normal and 103. Roentgenographic examination of the lumbar spine on admission was essentially negative. A second x-ray, ten days later, showed beginning rarefaction and early destruction of the spinous process of the fourth lumbar vertebra. Five weeks after the second spinal tap, at operation on November 21, there was extensive necrosis of the spinous process and of the adjacent soft tissue. The spinous process of the fourth lumbar vertebra was excised together with the necrotic soft tissue, and the wound was closed without drainage.

Penicillin was continued post-operatively and the patient had an uneventful convalescence. The preoperative pain promptly subsided and the wound was healed within two weeks. At discharge from the hospital on December 9 (18 days after operation) there was a complete and painless range of motion of the spine. The patient has been examined at regular intervals. He was seen a year later and has had no recurrence of pain. Smear and culture from operative wound showed Staphylococcus aureus. Dr. Kim's microscopic report: ". . . section shows necrosis of bone spicules. The marrow spaces contain chronic inflammatory tissue. There are numerous eosinophils and lymphoid cells. On the surface there is a thick layer of chronic inflammatory tissue showing several foreign body giant cells. Sections from the soft tissue show extensive necrosis of skeletal muscle with profuse infiltration of both mononuclear and polymorphonuclear cells. Diagnosis: chronic osteomyelitis with myositis."

A male patient, aged 37, had his first lumbar puncture on October 10, without any untoward effects. On October 13, a second lumbar puncture was performed with considerable dif-

* Presented at the Annual Meeting of the New Jersey Orthopaedic Society, Paterson, New Jersey, October 9, 1948.

† From St. Joseph Hospital, Paterson.

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2. Milward, F. J., and Grant, J. L. A.: Lancet, 2:183 (1936).
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5. Martin, Peter: British Medical Journal, 2:688 (1946).

ficulty, and was followed, in three days, by pain in the back. Five weeks later, operation was performed and osteomyelitis of the spinous process of the fourth lumbar vertebra was found. The succession of events indicated that the osteomyelitis found at operation resulted from the introduction of bacterial infection by the lumbar puncture.

588 East 27th Street

TOXIC REACTION TO AUREOMYCIN

REPORT OF A CASE

JACOB A. RIESE, M.D., Jersey City, N. J.

Since aureomycin is still in the experimental stage, it is of interest at this time to report that aureomycin *can* give rise to rather severe toxic reactions. The following case report is self-explanatory.

A forty-one year old female developed jaundice while under my care. All the evidence (including exploratory operation) pointed to cholangeolytic obstructive jaundice due to a virus hepatitis infection. As experimental therapy, aureomycin, 500 milligrams orally every four hours around the clock was given. After two weeks of aureomycin the patient thought she was better symptomatically and objectively. Factitial dermatitis due to severe pruritis was completely improved, the sclerae became much lighter, but the skin retained its jaundiced appearance. Because of symptomatic improvement (and for psychologic reasons) it was decided to continue aureomycin for an indefinite period of time. The patient took 500 milligrams of aureomycin at four hour intervals continuously for six weeks. She began to complain of a burning sensation in her chest and swelling of both legs, and discontinued the aureomycin. After two days, the swelling of her legs and the burning sensation disappeared. The patient returned to the oral ingestion of aureomycin for another two weeks and suddenly burst forth with a papulo-vesicular eruption. The vesicles enlarged rapidly to about the size of a dime and then opened. The affected skin had the appearance of superficial excoriations. The skin lesions were confined to the chest underneath the breasts, the fore-arm from the wrists to the elbows; between the thighs, and about the anus. The lesions were associated with diffuse edema of both feet and ankles which pitted under pressure, swelling of the entire face including the nose; swelling of both hands and fore-arms up to the elbow. She complained of a burning sensation of the mouth, retro-sternally, and in the rectum. She had an intense desire for liquids to quench the burning sensation in her mouth. The mucous membranes of the mouth were congested, and several white patches on buccal mucosa were noted.

With the cessation of aureomycin ingestion all findings both objectively and subjectively cleared within a few days. After all the above reactions cleared—one capsule of aureomycin containing two hundred and fifty milligrams was again given every four hours. After 1250 milligrams there was an immediate reappearance of the toxic reaction above noted. We thereupon discontinued all further treatment with aureomycin.

SUMMARY

Aureomycin was administered to a patient with cholangeolytic obstructive jaundice thought to be on a virus infection basis. Three thousand milligrams were given daily for six weeks. A toxic reaction was then encountered. Elimination of the drug caused cessation of all toxic effects within a few days. Aureomycin was again prescribed and a severe toxic reaction followed.

CONCLUSION

Aureomycin may give rise to a toxic reaction consisting of swelling of hands and forearms, ankles and feet, and face, and a papulovesicular and vesicular eruption between the thighs, about the anus, and underneath the breasts, (in a female patient). These findings may be associated with a burning sensation of the mouth; a burning sensation retro-sternally from the esophagus; and a burning sensation within the rectum and about the anus. The mouth mucous membranes may show congestion, and discrete white plaques on the buccal mucosa. There is immediate relief of symptoms and disappearance of all signs when aureomycin is discontinued.

46 Journal Square

HYPERTHYROIDISM WITH CARCINOMA OF THE COLON IN SISTERS

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The incidence of the same disease in several members of a family is a phenomenon which has been recognized by physicians and geneticists for many years. Both hyperthyroidism and carcinoma of the bowel have been known to occur in families; however, the coincidence of both diseases in two sisters is rare and is worthy of description.

Means [1] believes that heredity plays an important role in Graves' disease. He quotes Warthin as to the so-called "Graves constitution". Warthin regards this type of a constitution as an inherited tendency predisposing to the type of reaction represented by Graves' disease. The anatomic stigma of such a constitution is manifest by a generalized lymphoid hyperplasia. McGavack [2] states "a familial tendency to hyperthyroidism seems to exist. In the light of many recent contributions to the physiology of the thyroid gland, the so-called familial tendency may represent (a) damage in utero because of a thyroid disturbance in the mother; (b) environmental changes, particularly the dietary, which may have a goitrogenic effect; or (c) a constitution in which the thyroid is especially susceptible to emotional upsets or psychic trauma". Morrison [3] has reported six cases of hyperthyroidism in two generations of a Jewish family. Boas and Ober [4] have reported eleven cases in three generations. Moschcowitz [5] points out that the incidence of a family history, with this same disease affecting two or more members of a family, is more common than the law of averages allows. He emphasizes, in addition to the familial factor, the characteristic psychic makeup or personality of the victim of Graves' disease. Such patients are usually sensitive and emotional long before the onset of the disease. Bauer [6] assumes that there is an inherited constitutional weakness, a biologic inferiority of the thyroid, predisposing the gland to different pathological processes.

Perusal of the medical literature and a study of genetics reveals that inheritance also plays a role in the incidence of malignancy. Breeding experiments in animals [7] and clinical observations in men [8] have provided extensive evidence that inheritable susceptibility to cancer is no longer a matter of belief, but a matter of fact.[9] Warthin [10] sums up his study as follows: "In the histories of cancer cases coming from the state of Michigan, about 15 per cent show a striking history of multiple family occurrence. When the difficulty of obtaining good histories is considered, this proportion is relatively high, and on the whole, corresponds fairly closely with the percentage obtained by Williams. We must conclude then, that a definite susceptibility to carcinoma exists in certain families. This familial tendency is usually most pronounced when there is a history of cancer in both maternal and paternal lines. In such families there is an especial tendency for carcinoma to appear at an earlier age than in forebears, and in these younger individuals the cancer usually shows an increased malignancy."

Williams [11] has collected statistics regarding a large number of family groups in which several members of the same family died of similar or identical neoplasms. Wolff [12] in his review of cancer literature quotes an 11 to 18 per cent evidence of hereditary influence. He remarks that heredity is understandable on the assumption that abnormalities in fetal development, (which are often the starting point of a cancer) may repeat themselves in several members of a family or of a generation. Bargen, Mayo and Giffin [13] conducted a statistical study of 176 patients with proved cancers of the large intestine as compared with a control group of patients having carcinoma of the kidney and having no carcinoma at all. They concluded that when multiple cancers occur in any family and one cancer is localized in the colon or rectum, there was an appreciably greater chance that cancers in other members of the family would be localized in the colon, rectum, and also in the stomach. This frequency or chance was not as common in cancerous families in which colonic and rectal cancer was not known to exist. Macklin [14] believes that carcinoma of a specific type tends to occur among members of the same family, involves the same organ at the same age and is due to an inherited factor. Slye [15] finds that susceptibility to cancer behaves like a recessive characteristic and that insusceptibility or immunity to cancer behaves like a dominant characteristic. Bockus [16] states that "it is universally agreed that it is the predisposition that is inherited and that some exciting factor

1. Means, J. H.: *Thyroid and Its Diseases.* 2d Edition. Lippincott, Philadelphia (1948).
2. McGavack, T. H.: Tice's *Practice of Medicine.* Volume III. Page 247. Prior, Baltimore.
3. Morrison, H.: New England Journal of Medicine. 199:85 (1928).
4. Boas, N. F., and Ober, W. B.: Journal of Clinical Endocrinology, 6:575 (1946).
5. Moschcowitz, Eli: Archives of Internal Medicine, 46:610 (1930).
6. Bauer, Julius: *Constitution and Disease.* Grune and Stratton, New York (1942).
7. Wells, H. G.: Journal of the American Medical Association, 80:737 (1923): also, American Journal of Cancer, (supp.), 15:1919 (1931).
8. Bauer, J.: Genetics in cancer. Middleton Goldsmith Lecture (Oct. 12). N. Y. Pathologic Society (1932).
9. Macklin, M. T.: Quarterly Review of Biology, 7:255 (1932).
10. Warthin, A. S.: Journal of the Michigan Medical Society, 13:34 (1914).
11. Williams, Wm. R.: *Natural History of Cancer.* New York. William Wood and Company, p. 356 (1908).
12. Wolff, Jacobus: *Die Krebskrankheit.* Jena, 2:695 (1911).
13. Bargen, J. A., Mayo, C. W., and Giffin, L. A.: Journal of Heredity, 32:7 (1941).
14. Macklin, M. P.: Edinburgh Medical Journal, 42:49 (Feb. 1935).
15. Slye, M.: American Journal of Cancer, 18:535 (July 1933).
16. Bockus, Henry L.: *Gastroenterology.* W. B. Saunders Company, Philadelphia, 2:747 (1949).

added to the inherited susceptibility is required for the actual development of the carcinoma".

CASE ONE

This 50 year old white female was first seen in consultation on June 14, 1932, by Dr. Ernst P. Boas of New York City. She had been married for twenty years. There had been four normal pregnancies with living issue. Menopause occurred at the age of forty-seven. The patient had been in good health until the summer of 1931 when she began to feel the urge to sleep a great deal because of an increasing general weakness. Two weeks prior, during her supper, she suddenly observed that she was unable to move her right hand and her speech was altered. These symptoms lasted only a few moments. The following day she vomited. The patient remained in bed during the first three days but had been up and about during the past ten days during which time she had observed rather marked weakness. For one year she had observed occasionally a "sticking" pain below the left breast which had not incapacitated her. Dyspnea on exertion, palpitation, increasing nervousness and excitability had been observed during the past year. There had been a weight loss of seven pounds in two months.

The patient was well nourished and weighed 157 pounds. There was marked tremor of the hands. The thyroid isthmus was palpable though not enlarged. There was no substernal thyroid. Lungs were clear. The first heart sound was of good quality. A2 and P2 were not accentuated. The rhythm of the heart was absolutely irregular with a rate of 114 to 124. The blood pressure was 160/80. No murmurs were heard. Fluoroscopically there was moderate left ventricular preponderance. The abdomen was negative. The electrocardiogram revealed left axis deviation, auricular fibrillation and occasional ventricular extrasystoles. Basal metabolic rate was plus 38 per cent, but there was no exophthalmus.

The patient was prepared for surgery with aqueous solution of iodine and, June 27, 1932, subtotal thyroidectomy was performed by Dr. Harold Neuhof. A large cystic right thyroid lobe and a small left lobe were removed. The auricular fibrillation persisted postoperatively. Five days after operation she received quinidine sulfate. After 24 grains of the drug, sinus rhythm was restored. Her future was uneventful except for recurrence of paroxysmal auricular fibrillation with the permanent relief of the hyperthyroidism. And, in spite of a mild hypertension which was observed thereafter she remained moderately well.[17]

On February 16, 1934, the patient was again seen by Dr. Ernst P. Boas. At that time she complained of occasional "sticking" pains in the left lower quadrant which had been observed for about six months. Five days before severe abdominal cramps had begun and had been associated with obstipation. A small mass was felt in the left lower quadrant. Roentgen examination of the colon revealed a marked constriction at the junction of the sigmoid and the descending colon. Patient was operated upon by Dr. Leon Ginsburg. On February 17, 1934, a cecostomy for intestinal obstruction was performed. On March 5, a resection of the colon from the sigmoid to the transverse colon was performed. On June 11, extraperitoneal closure of the colon was performed. During the second and third stage postoperative periods transient auricular fibrillation developed, which subsided spontaneously after about twelve hours on each occasion.[17] Pathologic report was adenocarcinoma.

Eight years after initial exploratory, the patient was again seen by Dr. Boas. There had been two attacks of obstipation and cramps in the past few weeks. Barium enema revealed a partial obstruction at the junction of the proximal and intermediate thirds of the transverse colon which was felt to be due to malignant infiltration. At operation, the presence of a recurrent growth was confirmed and the liver was found studded with metastases. The postoperative sequence was, at first, uneventful except for transient bouts of auricular fibrillation. Then, without fever, the patient went into progressive shock with drop in blood pressure and expired on October 8, 1942. Post mortem examination was not done.

CASE TWO

This was the sister of Case One. I first saw

17. Boas, Ernst P.: Journal of the American Medical Association, 106:2238 (1936).

her on October 26, 1939. This 50 year old female had never been pregnant. Climateric occurred at age 44. Nervousness had increased somewhat since the menopause. Five weeks earlier, she observed momentary vague precordial pains. Five days previous, the patient had gone to the bathroom and while there had felt cold, dizzy and faint. Dizziness persisted for one-half hour. There had been no chest pains and no palpitation. The patient felt fatigued the next day and experienced mild precordial pain for a few minutes.

She was a well-built, tense and apprehensive woman. The eyes were not prominent and there were no abnormal eye signs. Hands were slightly tremulous and there was a moderately diffuse enlargement of the thyroid gland. Blood pressure was 170/100. There was a systolic murmur at the aortic and apical areas. The rhythm was absolutely irregular and rapid. Electrocardiogram showed left axis deviation and auricular fibrillation. Fluoroscopic examination revealed moderate left ventricular enlargement.

The patient was ordered to bed and digitalized. Within 48 hours the heart had reverted to regular sinus rhythm. After several weeks of bed rest the patient was permitted up. At that time it was observed that the heart rate, though regular in rhythm, never went below a rate of 100 per minute. Basal metabolic determination was plus 24 per cent. Patient was placed on aqueous solution of iodine and surgery was advised but refused. She was not seen again until April 23, 1941, at which time she appeared for re-examination. She was now amenable to surgery. During the previous eighteen months she had lost 19 pounds and complained of weakness, nervousness and dyspnea on exertion. Basal metabolic rate was now 44 per cent. A subtotal thyroidectomy was done on April 29, 1941, by Dr. Harry N. Comando. At the time a nodular goitre with cystic degeneration of the right lobe was removed. Pathologic report revealed a nodular colloid adenoma. Postoperative course was uneventful, and she was discharged from the hospital on May 6, 1941.

Three months later she was complaining of increasing weakness, palpitation, dyspnea and sense of precordial pressure. She now appeared chronically ill, pale and her face was puffy. There was no glandular enlargement. The blood pressure was 170/80. Pulse rate was 100 per minute. Abdominal examination was negative for masses. Basal metabolic rate was plus 19 per cent. Stool examination was positive for occult blood (guaiac). X-ray examination of the colon (August 16, 1941) with the aid of a barium enema showed an annular infiltration at the middle third of the transverse colon which was presumed to be malignant. The patient was explored on August 28, 1941, by Dr. Edward W. Sprague. An annular growth of the transverse colon was found. A few enlarged glands were observed at the ileo-colic vascular angle. The liver was not involved grossly. Resection of the transverse colon was performed and on September 30, 1941, the colostomy was closed. The pathologic report was adenocarcinoma of the colon. The patient was discharged from the hospital on October 12, 1941. At this time, she had a red blood cell count of 4,220,000 and a hemoglobin (Sahli) of 62 per cent.

The patient was not seen again until June 21, 1945, when she returned to Dr. Sprague for repair of a ventral (incisional) hernia. She had no gastro-intestinal symptoms. She was operated upon for the hernia and discharged July 5, 1945.

The patient came under observation again on September 15, 1948. She complained of anorexia and attacks of right lower quadrant pain accompanied by gradual loss of weight and increasing constipation for the past four to five months. Physical examination revealed a mass in both the right and left sides of the abdomen. The hemoglobin (Sahli) was 48 per cent and the red blood cell count was 2,700,000. Barium enema studies on September 20, 1948, showed an intrinsic annular defect in the descending colon at the level of the iliac crest and an intrinsic defect of the middle third of the ascending colon. The patient was explored by Dr. Sprague on September 30, 1948, at which time the x-ray findings were confirmed. There were extensive liver metastases. Resec-

tion of the ascending colon and cecum was performed with lateral anastomosis of the small intestine to the transverse colon. A resection of the descending colon with primary anastomosis was done. Pathologic examination of the resected areas showed an ulcerating adenocarcinoma.

On the fifth postoperative day, the temperature began to rise and the depth and rate of respiration increased. Dulness was found at the right base and râles were heard at this area. Chest x-ray on October 13, 1948, revealed increased density at the right base suggestive of broncho-pneumonia. Despite the use of penicillin which had been ordered postoperatively and continued until that time; and, despite the use of oxygen and other supportive measures, the patient's condition became progressively worse. She died on October 15, 1948. Post mortem examination was not done.

SUMMARY

1. The familial incidence and the hereditary background of both hyperthyroidism and cancer of the colon are discussed.

2. Two cases are reported of the occurrence of paroxysmal auricular fibrillation, hyperthyroidism and carcinoma of the colon in sisters.

The writer would like to express his sincere appreciation to Dr. Ernst P. Boas for permission to use the case histories.

31 Lincoln Park

DR. SCHAAF TO HEAD M-S PLAN

Dr. Royal A. Schaaf, Fellow of The Medical Society of New Jersey, was elected on September 2, President of the Medical-Surgical Plan of New Jersey, to succeed the late Dr. Thomas K. Lewis. The Medical-Surgical Plan is our society-sponsored voluntary health insurance project which now covers more than 300,000 of our fellow citizens. Dr. Schaaf, now medical director of Newark's Presbyterian Hospital, has been at various times president of The Medical Society of New Jersey, the Society of Surgeons, the Academy of Medicine and the Essex County Medical Society.

DIABETES DETECTION DRIVE

Diabetes Week, sponsored by the American Diabetes Association, will be observed from October 10 to 16, 1949. One of the purposes of this Diabetes Week is to find the hidden diabetic patient.

The Diabetes Detection Drive was approved by the House of Delegates, American Medical Association in 1948 and again in 1949. Thus, the Diabetes Detection Drive is a project of the doctors, by the doctors and for the public.

The New Jersey Diabetes Association will cooperate in every way to the support of every program of local activity in this year's Detection Drive. Please call on us for help.

JACOB C. FINEBERG, M.D., Chairman,
Committee on Diabetes Detection,
New Jersey Diabetes Association,
91 Lincoln Park, Newark 5, N. J.

COURSE IN CHEST DISEASES

An intensive full-time course in diseases of the chest is offered in New York City, November 14, 15, 16, 17 and 18 this year. Sponsored by the American College of Chest Physicians, the course is given with the full cooperation of the leading hospitals and medical schools in New York. The faculty is made up of nationally known specialists in various aspects of chest diseases. The course is approved for physician-veterans under Public Law 346. For detailed program and application, write to: American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois. Indicate in your letter that you are referring to the course given in New York City during the week of November 14, 1949.

CYTOLOGIC METHODS FOR THE DIAGNOSIS OF CANCER*

Asher Yaguda, M.D., Newark, N. J.

One of the important factors influencing mortality rates in cancer is the time which elapses from the start of the growth until it finally is diagnosed and comes to treatment. There is overwhelming statistical experience to prove that diagnosis in the earliest stages is tantamount to cure in most types of accessible cancer. Several factors are involved in the attainment of an early diagnosis of cancer. Among these is the problem of making the people more aware of the benefits of proper periodic health examinations and teaching them the more common signs and symptoms of cancer so that they will apply for medical aid earlier. Another factor is the lack of "cancer consciousness" among some physicians. These two defects are being assiduously worked upon by the American Cancer Society in cooperation with county and state medical societies through programs of educational value at both levels.

However, even with the public and the doctor alerted, there is still a great lack in our diagnostic ability in detecting early cancer. The diagnosis of cancer which has advanced to a stage where it produces a grossly discernible mass has been facilitated by improvements in diagnostic modalities including x-rays and endoscopy. These have made possible the visualization of tumor growths which were thus made susceptible of biopsy and a study of their histologic characteristics. Since the time of Virchow this has been the basic method for a definitive diagnosis of malignancy and was dependent upon the finding of morphologic, cytoplasmic, and nuclear changes and especially upon evidence of invasiveness of the tumor cells. The introduction of aspiration biopsies helped reach certain deep tumors which could not otherwise be investigated definitively. In spite of these, and in spite of the marked improvement in methods of treating diagnosed cancer, there has still not been enough improvement in five year cures in certain types of cancer. When they are large enough to produce symptoms and become diagnosable by these methods, they are already well advanced malignancies and are not readily extirpated.

One would suppose that a disease associated with such widely spread bodily changes as is cancer, should also cause some changes in the constituents of the blood or produce some substance which would be excreted in the urine. The medical literature of the past quarter century describes numerous tests offered for the diagnosis of cancer. Unfortunately, none has proved reliable or consistent. Recently, Huggins and his co-workers [1] reported another such test which was given immediate publicity in the Sunday newspapers. This test is based upon their observation of a significant difference in the thermocoagulability of the blood serum of cancer patients as compared with the blood serum of normal persons and non-cancerous patients. According to them the test reveals cancer in its earliest stages and before it becomes invasive. It is to be hoped that this test, sponsored as it is by careful and experienced researchers, proves more reliable than its predecessors. If it does, we will have a technic which will diagnose cancer in its earliest stages but will not, of course, localize it. It will therefore put the burden of finding the cancer upon the clinician who will be faced with the responsibility of locating the lesion by all means at his disposal. Emphasis will be on methods capable of detecting the earliest morphologic changes indicative of a cancerous process. Fortunately, through the observations of Papanicolaou,[2] (that malignant growths desquamate cells which can be identified after suitable fixation and staining), the method of study, which, while not entirely new, has been given a great stimulus, and is at the present time being studied by many workers for the purpose of evaluating its worth as a means of diagnosing cancers of certain organs where

* Read at the Section on Clinical Pathology, Annual Meeting of The Medical Society of New Jersey, April 15, 1949.

1. New York *Times* of April 17, 1949.
2. Papanicolaou, G. N., and Trout, H. F.: American Journal of Obstetrics and Gynecology, 42:193 (February 1941).

exfoliative cancer cells might accumulate in body secretions or fluids. While cytologic methods lack the ability to determine invasiveness, these methods *can* detect morphologic changes in exfoliated individual cells and groups of cells. While not pathognomonic in any single detail, these can be assessed as indicating malignancy.

Time will not permit a discussion of the technic of collection of specimens, or preparation, fixation, and staining of the smears. Nor shall I attempt to delineate the various cell changes which may be considered to indicate malignancy. These may be found in the ample literature.[3]

CANCER OF THE CERVIX AND UTERUS

Perhaps the greatest amount of experience with cytologic diagnosis has been in this type of cancer. In addition to the original technic of Papanicolaou,[2] who made smears of the vaginal fluid, modifications proposed by Ayre[3] and others have been reported. The two most commonly used technics are those of Papanicolaou and the cervical smear and smear of the squamocolumnar junction proposed by Ayre. His theory is that this samples the cells from the most common site of uterine cancer and that there is a greater concentration of cells than in the vaginal smear method. These studies (comprising fifteen different sources and a total of 22,760 cases) revealed a high ratio of accuracy[4] especially in the negative cases. The average ratio of false positive reports was 1.1 per cent with a range of from 0.7 to 2.3 per cent. Accuracy in diagnosing the positive cases was not as good, but was still impressive with an average of 11.6 per cent false negatives and a range of from 0 to 30 per cent. The smear technic has greater accuracy in cervical cancer than in endometrical cancer, there being twice as many false negatives in the latter group than in the former.[5]

False positives are usually due to changes in benign cells simulating malignancy. Atypical cells which are difficult to evaluate may be found in chronic inflammation, hyperplasia of the endometrial and endocervical cells as a result of hormonal stimulation, cellular changes resulting from diminished ovarian function, radiation reactions, and epidermidization of the endocervical glands. The misinterpretation of benign cells as malignant is a frequent error made by the beginner. However, with experience and practice and the consideration of doubtful cells as negative, false-positive diagnoses can be held to a minimum.

While experience will help the cytologist in distinguishing the changes due to inflammaory and reparative processes from those due to malignancy (and thus cut down on the number of false-positive reports) this does not hold true for false-negative reports. Malignant cells do not appear in the smears of all phases of cancer. They may be present in so few numbers as to be missed. Malignant cells also have a tendency to degenerate more quickly than normal cells and so the malignant characteristics of the cells may be obscured. Furthermore, malignant cells from well differentiated adenocarcinomata and low-grade epidermoid carcinomata vary so slightly from benign cells that even the most expert cytologist may not be able to assess them properly. If clinical suspicion of cancer exists, a single negative smear should not be considered conclusive. Meigs[6] reported only six positive smears out of sixteen, taken from a patient with a cervical cancer, in a period of seven days. On the other hand a single positive smear is of diagnostic value. With this method several observers have reported the diagnosis of preinvasive carcinoma of the cervix.

BRONCHOGENIC CARCINOMA

With the increasing use of mass x-ray studies of the chest in the drive against tuberculosis, occasional small areas of radio-opacity are picked up in the lungs which have no specific characteristics and which in the absence

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3. Ayre, J. E.: American Journal of Obstetrics and Gynecology, 54:363 (March 1947); *and* Herbut, P. A., and Clerf, L. H.: Journal of the American Medical Association, 130:1006 (1946); *and* Papanicolaou, G. N., and Cooper, W. A.: Journal of the National Cancer Institute, 7:357 (1947); *and* Matthews, W. H.: Canadian Medical Association Journal, 58:236 (1948); *and* Herbut, P. A., and Lubin, E. N.: Journal of Urology, 57:542 (1947); *and* Papanicolaou, G. N., and Marshall, V. F.: Science, 101:519 (1945). Also see citation 2, above.

4. Quoted by Schaffey, L. C., and Rakoff, A. E.: Medical Clinics of North America, 32:1563 (1948).

5. Fremont-Smith, M. *et al.*: New England Journal of Medicine, 238:179 (1948).

6. Meigs, J. U.: Journal of the American Medical Association, 133:75 (1947).

of clinical symptoms have been frequently considered insignificant both by the roentgenologist and by the clinician. Other persons, notably in the middle and older age groups present themselves with a cough which has persisted for some time, and on x-ray small areas of infiltration are found which cannot be distinguished from non-cancerous pulmonary lesions. In these cases, early bronchoscopy should be undertaken, and if the lesion is in the main bronchi or their immediate subdivisions, the tumor can be directly visualized and a biopsy taken. If, however, no neoplasm is seen, then it is a simple matter to collect bronchial secretions from the region involved and have smears of this material examined for cancer cells. That cancerous tissue can be found in bronchial secretions has been known for many years as evidenced by the reports in the literature[7] of the finding of cancer cells in sputum dating back as far as 1895. Excellent results[8] have been accomplished in the examination of sputum by European workers who report from 68 per cent to as high as 86 per cent positive diagnoses in bronchogenic carcinoma. In the United States, the examination of the sputum for cancer cells has not been given much of a trial, and in the few reported studies,[9] positive smears in the sputum of patients with bronchogenic carcinoma have ranged from 43 to 73 per cent.

Herbut and Clerf[3] prefer smears of bronchial secretions as offering a more positive approach to the discovery of cancer cells originating within the lungs. Bronchoscopy in cases suspected of having carcinoma is conceded to be a necessary method of investigating the major bronchi and it is a simple matter in all bronchoscopic examinations to obtain bronchial secretions or washings by direct aspiration from the drainage pathway of the area of suspected involvement. This does not expose the patient to any added risk and may give valuable information even where biopsy material is obtainable. In a series of 54 cases of bronchogenic cancer in which bronchoscopy was done and bronchial secretions obtained, McKay[10] reports that the diagnosis could be made bronchoscopically in only 29 cases (or 54 per cent) whereas the smear of the bronchial secretion was positive in 40 cases (or 74 per cent).

Woolner and McDonald[9] presented some data on a series of 70 cases in which the smear examination of either bronchial secretions or sputum were positive for malignant cells. In seven of these, the lesions were in the upper lobe and bronchoscopic biopsy was unobtainable. Another seven cases were reported as negative bronchoscopically and had lesions in the periphery of the lung. No bronchoscopic examination was done in 14 cases because of the condition of the patient and the presence of obvious metastases. Positive biopsies were obtained in 41 of the 70 cases. Only one of the 70 positive smears was shown to be a false positive.

Of a total of 274 cases of bronchogenic carcinoma compiled from the recent literature, the smear technic (both sputum and bronchial secretions) was positive in 191 instances or 70 per cent. The range was from a low of 42.8 per cent in one group of cases to 82.4 per cent. The majority of the investigators reported between 72 and 82 per cent positive results. False positive smears occasionally occur. Some of these are due to errors in interpretation and some represent a limitation in the cytologic diagnosis of carcinoma. Because false positive smears do occur, the smear alone should never be the basis for a pneumonectomy. It should, however, put the burden of proof, that carcinoma is not present, on the doctor and should even warrant an exploratory thoracotomy if the clinical picture is sufficiently suspicious. I have recently seen several cases of upper lobe lesions in which a diagnosis of bronchogenic carcinoma was possible on both bronchial secretions and sputum examination in spite of negative bronchoscopy. I feel that it is difficult to deny the worth of

7. Betschaert, Emil: Virchows arkives fur Pathologische Anatomie, 142:86 (1895).
8. Dudgeon, J.: Archives of Laryngology and Otology, 50:752 (1935); *and* Barrett, N. R.: Journal of Thoracic Surgery, 8:169 (1938); *and* Gowar, F. J.: British Journal of Surgery, 30:193 (1943); *and* Wandall, H. D.: Acta Pathologica et Mecrobiologica Scandinavica, 20:485 (1943).
9. Woolner, J. B., and McDonald, J. R.: Proceedings of the Staff Meetings of the Mayo Clinic, 22:369 (1947); *and* Liebow, A. *et al.*: Cancer, 1:223 (1948); *and* Papanicolaou, G. N.: Journal of the American Medical Association, 131:372 (1946).
10. McKay, D. G. *et al.*: Cancer, 1:208 (1948).

any technic which "increases the percentage of preoperative microscopic diagnoses to 76 from 38 per cent available from biopsies alone". (Liebow [9]).

GASTRIC CARCINOMA

The high incidence of gastric carcinoma and the relative late diagnosis of this lesion by present methods makes it extremely desirable to seek new methods of earlier diagnosis. The Papanicolaou technic [3] has been applied to the examination of fasting gastric contents in an attempt to meet this need. Various methods of aspiration have been tried in an attempt to increase the yield of positive smears in cases of gastric carcinoma. A major drawback to this method is that in many of the specimens, the cells in the gastric contents are so badly preserved that they are impossible to evaluate.

The results of the cytologic method in this field have not been as promising as in the diagnosis of uterine and bronchogenic carcinoma. No large series have been reported in the literature, but in recent contributions,[11] the percentage of positive reports were 35, 37, and 62½ per cent. False positives in the same series numbered 7, 0, and 4 per cent respectively.

In spite of the high ratio of negative results in proved cases of carcinoma of the stomach, the smear method offers another approach to the diagnosis of cancer of the stomach. Further experience in large series of cases will undoubtedly result in improved technic and in a higher percentage of positive yields. In the meantime the method should be used with and not instead of the other approaches to a diagnosis of cancer of the stomach.

CANCER OF THE PROSTATE

Cancer of the prostate is an important cause of death among males of the older age group. Diagnosis of cancer of the prostate (prior to its infiltration of the pelvic tissues or metastasis to bone) depends upon the palpating finger introduced into the rectum. This method of diagnosis can discover hard lumps in the posterior portions of the prostate, but unfortunately, most prostatic cancers [12] are not located in this area. Biopsy of the prostate is not a satisfactory or fruitful procedure and biochemical determinations of acid phosphatase levels are not revealing usually until bone metastasis occurs.

In 1931, Mulholland [13] reported the results of the examination of prostatic secretions obtained by prostatic massage in patients with known carcinoma of the prostate. He found cells in the prostatic secretion in 77 per cent of these cases which were stated to be cancer cells by Dr. W. C. MacCarty who explained the presence of these cells on the basis of exfoliation. No further references appear in the literature until 1945 when Papanicolaou [3] reported evidence of cancer cells of prostatic origin in the urine. Since that time a few reports have appeared. The most recent report by Alpers [14] gives the results of the study of prostatic secretions in 24 cases of clinical carcinoma of the prostate. In 19 of these 24 cases, the secretions were positive for carcinoma cells. Carcinoma cells were also reported in three of 100 cases of clinical benign hypertrophy of the prostate. The presence of carcinoma in these three cases was confirmed by histologic examination of tissue removed by transurethral resection. As the obtaining of prostatic secretions is an office procedure and simple of accomplishment, it seems warranted to suggest that in patients past 55 years of age with prostatic enlargement, this technic could pick up early malignancies of the prostate and perhaps improve the present outlook for cure of this condition.

URINARY TRACT

In spite of the fact that cancer of the urinary tract has been diagnosed from material obtained in the urine [15] as early as 1864, the diagnosis of urinary tract malignancy is dependent on roentgenology and, in the case of the bladder, upon cystoscopic examination with biopsy. Since 1864, several papers have appeared de-

11. Pollard, H. N. *et al.*: Journal of the American Medical Association, 139:71 (1949); *and* Graham, R. N. *et al.*: Surgery, Gynecology and Obstetrics, 86:257 (1948).
12. Kahler, J. E.: Journal of Urology, 41:557 (1939).
13. Mulholland, S. W.: Proceedings of the Staff Meetings of the Mayo Clinic, 6:733 (1931).
14. Alpers, D. D. *et al.*: Journal of the American Medical Association, 139:299 (1949).
15. Sanders, cited by Daut, R. V., and McDonald, J. R.: Proceedings of the Staff Meetings of the Mayo Clinic, 22:383 (1947).

tailing occasional diagnoses based on examinations of urinary sediments, but it was not until Papanicolaou and Marshall's report [3] appeared in 1945 that any interest was shown in this method of investigation. The results of the series of sediments examined in the past few years, while not large enough to be conclusive, offer some encouragement for the continued use of this method. In 240 cases in which the urinary sediment was examined, the results obtained [16] indicate that in 76 cases of proved malignancy, 55 or (72.3 per cent) showed positive smears; while 9 cases, (12 per cent) were doubtful; and 12 cases (15.8 per cent) were false negatives. Of the clinically negative group, a correct smear diagnosis was made in 93 per cent. There were nine doubtful reports (5.6 per cent) and two false positive reports (1.2 per cent). Both of the false positive reports were in cases of papilloma of the bladder. Among the positive cases correctly diagnosed were carcinomas of the bladder, prostate, and kidney.

SEROUS CAVITY EFFUSIONS

The diagnosis of malignancy from examination of ascitic and pleural effusions has been a routine procedure in most hospital laboratories for the past quarter of a century and needs no further comment. Recently, stimulated by the reports of cytologic diagnosis appearing in the literature, McCandless [17] applied this technic to the study of a pericardial effusion and calls attention to its potentialities in the diagnosis of metastatic involvement of the pericardium.

CONCLUSIONS

1. The simplicity of obtaining material for cytologic diagnosis, its inexpensive cost, and its demonstrated ability to reveal some malignancies which are not readily susceptible to biopsy (and in others in which biopsy is negative) certainly warrant granting this method a place in our diagnostic attack on the problem of cancer.

2. Care must be exercised not to place too much dependence on the cytologic diagnosis of cancer to the exclusion of other established diagnostic methods. Complete history, physical examination, and special examinations such as endoscopy and x-ray should be taken into consideration in evaluating the results of cytologic examination. Positive results should be confirmed by biopsy where possible. Because false positives do occur, surgery should never be undertaken solely on the basis of a cytologic diagnosis.

3. Should a diagnostic test capable of revealing the earliest stages of cancer in its preinvasive phase become a reality, it will point up the need for a better understanding of the earliest changes indicating a departure from normal cell cytology in the direction of malignancy.

4. Familiarization with the cell changes which add up to a diagnosis of a cancer cell is not impossible of achievement. It is up to the pathologists and clinical pathologists who are already well grounded in microscopic diagnosis to acquaint themselves with this new orientation in the study of cancer, to equip themselves and to provide the facilities for the cytologic diagnosis of cancer.

61 Lincoln Park

16. Papanicolaou, G. N.: Journal of Urology, 57:375 (1947).
17. McCandless, F. D., and Faloon, W. W.: Annals of Internal Medicine, 29:1157 (1948).

THEY CAN TAKE IT FROM THE DOCTOR

The responsibility of the doctor in enabling the patient to gain psychologic acceptance of the diagnosis cannot be too strongly emphasized. There is much that auxiliary medical personnel can do, but all that they do cannot equal what the doctor himself can accomplish in helping the patient to develop a constructive attitude toward his illness. The patient "can take it" from the doctor to a degree that no one else can match. The understanding and assurance the patient receives from the doctor have far more effect in creating a frame of mind conducive to successful hospitalization than any help the patient receives from others. William B. Tollen, VA Pamphlet 10-27.

CHOLANGIOGRAPHY THROUGH BILIARY FISTULAE

With Report of Two Cases

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Cholangiography is a method of investigating the biliary tract in which radioopaque substances are injected into the bile ducts and visualized by x-rays. The advantages of such a method over the frequently used cholecystogram are numerous. The cholecystogram merely demonstrates a normal or non-functioning gall bladder often without revealing whether the disease is in the liver, bile ducts or gall bladder. Cholangiography localizes exactly the site of the pathologic process (such as stricture, neoplasm, stone or sphincter of Oddi spasm) and in addition gives information concerning the probable nature of the process. It thus affords the surgeon the same type of information that the urologist obtains from retrograde urograms.

Cholangiography may be "immediate", at the time of operation, or "delayed", that is, performed after operation through a T-tube or external fistula. Cholangiography is accomplished at the time of primary operation where choledochal disease is suspected, by injecting the opaque medium (diodrast, lipoiodine, etc.) into the gall bladder after aspirating that organ. It is readily accomplished postoperatively through a T-tube thus enabling the surgeon to confirm the patency of the common duct before removal of the drainage tube. Postoperatively cholangiography through a draining external biliary fistula has been accepted as a valuable diagnostic procedure since the work of Lanarri and Squirri [1] in 1924.

By injecting lipoiodine through an external biliary fistula, these authors were able to locate the obstructive agent and to give information of great value in selecting the operation best suited to correct the abnormalities found. Best [2] classifies biliary fistulae as *mucobiliary* and *bile-biliary* types. In the *mucobiliary* type of fistula, there is persistent drainage from the gall bladder following cholecystostomy, spontaneous external rupture and incomplete removal of the gall bladder. Here cholangiography through the fistula demonstrates the mechanical problem which is usually an obstructive agent such as stone, mucus plug, blood clot, organized debris or possible stricture. Occasionally the obstruction is released by repeated irrigations and by antispasmodics by mouth but usually, cholecystectomy becomes necessary with or without common duct exploration.

The *bile-biliary* type of fistula is usually a sequel of some operative procedure on the gall bladder. It frequently follows cholecystectomy during which the common duct has been injured or when there is a remaining stone, tumor, blood clot, mucus plug or organized debris obstructing the common duct. Occasionally, the common or hepatic duct may be completely severed in the course of routine cholecystectomy. Best [2] states, "Under no circumstance should a final conclusion be drawn regarding the status of any biliary fistula until a cholangiogram has been made."

The technic employed by one of the authors (L.S.E.) for cholangiography through an external biliary fistula is as follows:

The patient presents himself for examination after a fasting period and after mild catharsis followed by an enema to reduce intestinal gas. A preliminary abdominal scout film is made. The area about the fistula is cleansed and painted with an antiseptic preparation, following which sterile drapes are applied, and sterile precautions employed. A ureteral catheter is passed into the fistulous tract as far as possible without forcing. Aspiration of as much fluid as possible is attempted. Gentle injection of the radioopaque substance through the catheter is then begun and observed fluoroscopically. Diodrast, 35 per cent, heated to body temperature is used. It is miscible, flows readily through the smallest biliary radicles, offers good roentgen contrast and unlike the oily preparations, does not entrap air bubbles. Roentgenograms are exposed after the injection of two cubic centimeters and then five cubic centimeters of diodrast, and are

1. Quoted by: Hicken, N. F., Best, R. R., and Hunt, H. B.: Annals of Surgery, 103:210 (1936).
2. Best, R. R.: American Journal of Surgery, 43:1 (1944).

promptly developed and viewed before introducing any more of the contrast medium. Further roentgenograms are exposed after injecting 10, 15 and 20 cubic centimeters. These roentgenograms are then developed and viewed, indicating whether additional medium is needed to demonstrate the biliary system in case of unusual dilatation. If there has been too rapid an escape of the medium into the duodenum for satisfactory visualization, morphine in 1/6 grain dose is administered to cause contraction of the sphincter of Oddi. If none of the medium has escaped through the sphincter, 1/100 grain of nitroglycerin is given sublingually. This enables differentiation between closure of the duct due to spasm and closure due to organic obstruction.

In cholangiography through external biliary fistula in cases where the gall bladder has not been removed, it is usually necessary to inject 40 to 60 cubic centimeters of the contrast medium in order satisfactorily to visualize the biliary tract. Where the gall bladder is present, the examination is incomplete unless a fatty meal is administered after the usual studies are accomplished. Administration of the fatty meal causes contraction of the gall bladder and gives valuable information not only about its function but also about the patency of the cystic and common bile ducts. This is brought out in case two below. To our knowledge, we are the first to employ this added study in the technic of cholangiography.

Roentgenograms in true lateral projections are also exposed during cholangiography and are of obvious assistance in studying the course of the fistulous tract.

Normally, the common hepatic duct is five millimeters in diameter and 30 millimeters in length. It is formed by the union of the main right and left hepatic ducts which measure about three millimeters in diameter. The common bile duct is four to five millimeters in diameter and 70 to 80 mm. in length. There is slight narrowing of the pancreatic portion and the distal end of the duct tapers rather sharply to a filamentous lumen less than one millimeter in diameter and 10 to 15 in length which curves to the right.[3] Hicken and his co-workers [4] have summarized the roentgen appearance of pathologic findings in cholangiography through external biliary fistulas. Stones give negative shadows. Blood clots and inspissated plugs of mucus cause pleomorphic filling defects which float around within the ducts. In pancreatitis there is concentric compression of the ampulla of Vater so that passage of the contrast fluid through the ductal lumen gives a distinctive thread-like pattern. There is slow but progressive obstruction of the ampulla of Vater in carcinoma of the pancreas resulting in tremendous dilatation of all other segments of the biliary tract. Biliary dyssenergia is manifested by a temporary but complete obstruction of the terminal choledochus, which responds promptly to the exhibition of nitrites.

Active infection of the biliary tract is the contraindication to cholangiography. *There is a danger of causing acute pancreatitis by reflux into the pancreatic duct if cholangiography is performed during an acute cholangitis.* Transient pain and fever are occasional complications after cholangiography and may be due to the introduction of bacteria into the blood stream by biliary regurgitation. It is suggested therefore [5] that the pressure of injection be kept low and sterile precautions be used.

CASE ONE

A 40 year old white housewife had been in excellent health until 1943, when she developed attacks of right upper quadrant pain and dyspepsia. In February 1947, she became jaundiced. A diagnosis of cholelithiasis was made following which cholecystectomy was performed in April 1947. After



Figure 1

Case 1—Roentgenogram after administration of nitroglycerin showing organic obstruction of distal end of common bile duct and stricture of its proximal end. The dilated intrahepatic radicles are well seen.

3. Hunt, H., Hicken, N. F., and Best, R. R.: American Journal of Roentgenology, 38:542 (1941).
4. Hicken, N. F., Whisted, L. B., and Coray, Q. B.: Surgery, Gynecology and Obstetrics, 74:828 (1942).
5. Rigler, L. G., and Mixer, H. W.: Radiology, 48:463 (1947).

operation, moderate jaundice persisted and a draining external biliary fistula developed.

Cholangiographic studies were done using the technic described above. This demonstrated persistent narrowing of the proximal and distal ends of the common bile duct. There was moderate dilatation of the remainder of the biliary tree including the intrahepatic radicles. The constancy of these changes in all films in the series indicated an organic obstruction. This was confirmed by failure of 1/100 grain nitroglycerin sublingually to promote flow of the contrast medium into the duodenum. A diagnosis of organic obstruction of the common duct at its distal and proximal ends was made on the basis of these findings. There was no roentgen evidence of biliary calculus.

The patient continued to have jaundice and the draining fistula until May 1948, at which time she consented to reoperation.

After suitable preparation, operation was performed and disclosed strictures of the mid- and distal portions of the common duct. The remainder of the duct was greatly dilated. No evidence of stone was found. The duodenum was opened and the ampulla of Vater examined without disclosing a stone. Despite the absence of stone, a probe could not be passed through the ampulla, indicating stricture. The diaphragm between the duodenum and the choledochus was thereupon incised, and a hemostat was introduced into the common duct which was opened. A T-tube was passed through the common duct well into the duodenum. The upper end of the T-tube was placed in the dilated common and right hepatic duct. Interrupted catgut sutures were used to close the duct about the tube. The duodenum was repaired with two layers of continuous catgut sutures placed transversely. A cigaret drain was placed in Morrison's pouch and brought out together with the long arm of the T-tube through a stab wound in the loin. Repair of the operative wound was then accomplished. The T-tube was removed at the end of six weeks. Patient has been symptom-free since that time.



FIGURE 2

CASE 2—Demonstration after injection with 60 cubic centimeters of contrast medium of the proximal portion of the choledochus.

CASE TWO

A 55 year old white male had an operation for gall bladder calculi, October 6, 1948. A cholecystostomy was done and thirty faceted calculi removed. The common duct was opened and found patent. A T-tube was inserted and a rubber tube placed in the gall bladder. The T-tube was removed after two weeks and the patient continued to drain through an external fistulous opening. This drainage stopped December 1, 1948, and two days later, patient developed epigastric pains which were of a colicky nature, and which were accompanied by chills and fever, and in a day or two by jaundice. A cholangiogram was done on December 7, 1948, by one of us (L.S.E.) and reported as follows:



FIGURE 3

CASE 2—After ingestion of fatty meal, contraction of the gall bladder enables visualization of the entire common bile duct. The dilation of the duct and its abrupt termination demonstrating an obstructing calculus are evident. The large arrow points to the contracted gall bladder. The two smaller arrows indicate the fistulous tracts described in the text.

"Cholangiography was accomplished by injection of 35% diodrast into a draining external biliary fistula through a ureteral catheter. Preliminary abdominal scout film revealed no masses, enlarged viscera, or intra-abdominal calcifications. Roentgenograms were made after the injection of 5 cubic centimeter quantities of diodrast up to 20 cubic centimeters and then following the added injection of 40 and 60 cubic centimeters of the contrast medium. The fistulous tract is seen to run directly to a large irregular cavity in the tissues just medial to the neck of the gall bladder. This large irregular cavity has no visible connection with the common bile duct but does communicate with the neck of the gall bladder. There is a smaller fistulous tract approximately 20 millimeters in length connecting the fundus of the gall bladder with the main tract. The gall bladder is well filled after the injection of 20 cubic centimeters of diodrast and displays no intrinsic filling defects. The cystic duct with the spiral valves of Heister are well seen. The common duct is only faintly visualized despite the use of amyl nitrite.

"Patient was thereupon given a fatty meal, following which there was excellent contraction of the gall bladder. The cystic and common ducts became well outlined by the contrast medium which showed considerable dilation of the choledochus which measures 10 millimeters in diameter. The common bile duct is seen to terminate abruptly presenting a cupped, concave distal end, with a very faint amount of dye extending around a radiolucent shadow which appears to block the common duct. The appearance suggests a long-standing obstruction with dilation of the duct due to a radiolucent calculus. No contrast medium is seen to enter the duodenum. The hepatic ducts are not visualized probably because not enough pressure was produced because of the presence of the gall bladder, to force the diodrast backwards.

"Cholangiography indicates: (1) obstruction at the end of the common duct of the type seen with a calculus, causing dilation of the common bile duct; (2) biliary fistula with one branch draining an extra-vesical cavity which communicates with the gall bladder, and a second branch draining the fundus of the gall bladder; (3) a normally functioning gall bladder with no intrinsic filling defects and containing no stones."

Following this roentgen conclusion, a second operation was performed December 14, 1948. The right rectus surgical scar was excised. Gall bladder adhesions were separated from the liver. A dilated common bile duct was opened and a stone palpated with a probe. It was necessary to remove the stone, which was approximately one centimeter in diameter, transduodenally. The common duct was too short to allow introduction of a T-tube. A number 18 catheter was therefore placed in the choledochus, following which the gall bladder was drained and the wound closed. The catheter came out accidentally on the eighth post-operative day. Despite this, the patient made an uneventful recovery.

SUMMARY AND CONCLUSION

Cholangiography through externally draining biliary fistulae is a simple, safe, and accurate method for determining the cause of this abnormal bile drainage. It gives information of great value to the surgeon and should in our opinion be performed before operation is considered in this type of case. The technic we have found of value is described, and illustrative cases reported.

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SUNSHINE CAN PRODUCE HIVES

Hives due to allergic reaction to sunlight is a rare condition. Stephen Epstein, however, reports two cases in great detail in the August issue of the *Annals of Allergy*. Interestingly enough, the condition may be transferred by injecting some of the patient's blood serum into the skin of a normal individual. Dr. Epstein finds that the newer anti-allergy drugs help some. He urged that contributing factors, notably pressure, be controlled while the patient is under treatment. The ordinary protective creams which are effective against sunburn are not effective here because they do not protect against the longer ultra-violet rays.

ALLERGIC ARTHRITIS

For the last forty years according to Dr. Jonathan Forman, president of the American College of Allergists, physicians throughout the world have, from time to time, found persons whose joints became swollen, hot, and painful following the eating of certain foods or taking certain drugs. While the number of these cases is by no means large, they are significant, Forman points out. In this connection, he cites the observations of Jerome Miller, in the August issue of the *Annals of Allergy*. Dr. Miller collected reports on allergic arthritis which have appeared and added three new cases of his own. He believes that certain types of arthritis are caused by an allergy to foods and that a certain number of patients with inflamed, painful joints give a history that they themselves or members of their family have had other allergies. Patients with any of these allergies who suffer from arthritis should suspect that the latter too may be allergic. Dr. Miller indicates the many laboratory tests which may help to exclude causes other than allergy, as well as a few that help to identify the nature of the arthritis. When all this evidence has been correlated and sufficient proof is lacking that the arthritis is caused by some other factor, one is justified in using special elimination diets for identifying the offending food.

SUCCESSFUL SURGICAL TREATMENT OF CHRONIC CONSTRICTIVE PERICARDITIS *

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The incidence of successful surgically treated chronic constrictive pericarditis is small enough to warrant the report of another case. In the main, most cases reported are from chest surgical centers. The largest series (42 surgically treated cases) are reported by the Boston [1] group. The diagnosis of chronic constrictive pericarditis is difficult because of its obscure pathology, insidious onset, slow progress and protean manifestations. The study of this case demonstrated the typical clinical picture of the disease and its surgical management disclosed the classical demonstration of its pathology.

Richard Lower in 1669 first described the clinical features of the disease which resulted from the thick and calloused pericardium found at autopsy.[2] Little attention was paid to it until 1896 when Pick published his paper which dealt with the differentiation of cases of liver cirrhosis associated with constrictive pericarditis and polyserositis. It remained for an internist, Delorme, to arouse interest in its surgical treatment as he had previously done for other cardiac conditions. Previous attempts to relieve the compressive effects of the pericardium in chronic constrictive pericarditis laid the foundation for the first successful operation by Rehn in 1913 in Europe and by Churchill in this country in 1929.

ETIOLOGY

Despite pathologic and bacteriologic studies of 46 of their reported 53 cases, Paul [1] *et al.*, found the etiology obscure in all except nine cases which showed tuberculosis as the cause. Although some believe that tuberculosis is largely responsible, others are of the opinion that several infective organisms may produce a similar fibrosing process. In a large proportion of cases, when the disease is established, infection has long ceased to be active and the actual exciting cause may have disappeared. For example, while many patients give a history of having had rheumatic heart disease, no evidence of it may be seen in the thickened pericardium. The frequency of calcification has led many to believe that tuberculosis is the major causative factor although no typical tuberculous lesions may be found microscopically.

PATHOLOGY AND PHYSIOLOGY

The condition starts as an inflammatory reaction to an infective agent in the serosa of the pericardium. This results in a fibrinous exudate with or without fluid. Organization of the exudate with development of layers of fibrous tissue and absorption of the fluid follows. This fibrotic process may extend into the myocardium itself or predominate in one or several areas.[4] As contraction of this fibrous tissue occurs, the mobility of the heart is compromised. In some cases plaques of calcium are deposited in the thickened fibrous pericardium. As contraction progresses, and the limitation of cardiac mobility and contractability increases, the stroke volume of the heart is reduced. A contraction of the thickened pericardium may involve the entire heart uniformly or may predominantly involve only one side of the heart. This encasing membrane may also vary in thickness and consistency. The earliest effect is on the diastolic phase. This prevents the heart chambers from filling properly and results in venous back pressure. As constriction of the heart progresses, the systolic phase is restricted, thus interfering with the peripheral circulation. This is evidenced by dilatation of the jugular veins, edema of the extremities, enlargement of the liver, ascites and pleural effusions.

SYMPTOMS AND SIGNS

These depend on the effect of the circulatory system. Earliest and commonest symptom is dyspnea on exertion. As the process progresses this becomes more marked and signs of cardiac embarrassment develop. Swelling of the ankles and legs is next in frequency and often is accompanied by abdominal swelling and discomfort due to liver enlargement and ascites. The cardiac shadow as seen by x-ray

* So far as we have been able to determine, this is the first operation for constrictive pericarditis reported from New Jersey.—Editor.

may be of normal size, diminished or enlarged. Paul [1] *et al.* found both cardiac enlargement and calcification of the pericardium in 55 per cent of their 53 cases by x-ray. Of 40 cases studied by fluoroscopy, 32 showed diminished or absent cardiac pulsations. Electrocardiographic studies may show little electrocardiographic changes. Most showed low voltage and flattening or inversion of the T waves in Leads I and II.

DIFFERENTIAL DIAGNOSIS

This disease is most often confused with cardiac decompensation in mitral stenosis, cirrhosis of the liver, polyserositis and nutritional edema.[4] Any patient with signs of congestive heart failure without apparent cause should be considered as a possible chronic constrictive pericarditis. The most important findings pointing to this condition are the insidious onset, progressive course, peripheral edema, enlarged liver and ascites, prominent neck veins showing increased venous pressure and a small paradoxic pulse. Auscultation often shows relatively normal heart sounds. Fluoroscopy demonstrates small cardiac pulsation and x-rays frequently disclose calcific plaques in the pericardium. The electrocardiogram showing small QRS complexes and flattened or inverted T waves accompanying this clinical picture is considered strong confirmatory evidence of this disease.

PROGNOSIS

Patients with this disease may live a life of restricted activity or invalidism for many years dependent on the degree of circulatory embarrassment.[3] Surgical treatment for patients whose symptoms definitely interfere with their activity offers great relief in the vast majority of cases. In spite of surgical treatment a small number of patients (in whom the fibrosis extends into the myocardium or about the coronary and venacaval vessels that would make removal extremely dangerous) have had little relief. Medical measures are left for those cases and for patients who have minimal symptoms or are too old.

TREATMENT

As soon as the diagnosis is established, medical treatment is started. This is aimed at improving cardiac function and fluid balance. Diuretics and salt depletion and digitalization will relieve the tissue edema and improve heart action. The pleural and peritoneal cavities are aspirated if the amount of fluid is sufficient to warrant it. Adequate vitamin therapy, a high protein and high caloric diet are essential. After maximum improvement has been obtained, the general condition of the patient is appraised. Here the combined decision of the cardiologist and the surgeon is necessary to decide if surgery is indicated or if continuation of a conservative regime is advisable. It may be in the best interests of the patient to postpone surgery because of marked improvement or because of the age of the patient. Failure to respond to conservative measures makes the risk of surgery too great. In such instances, medical treatment is continued. Surgical treatment is reserved for patients in whom an improvement is anticipated or where the risk is not too great. The surgical treatment is essentially the same as described in the case report. Paul [1] *et al.*, who report the largest series, performed pericardiolysis and partial pericardectomy in 42 patients. Results were satisfactory in 25. Some patients required a second operation to remove additional portions of the pericardium before improvement resulted.

The following case report will illustrate the development of the predominant symptoms. The description of the operation will demonstrate the usual technic followed by most of the surgeons engaged in this work.

A female, 38 years old, was admitted to the Newark Beth Israel Hospital on August 5, 1947. Her complaints were swelling of the ankles and abdomen and dyspnea on exertion.

She had been examined seven years earlier during a routine examination for a health card at the Newark City Dispensary and was found to have a calcification of the pericardium. She had no symptoms at that time. She had been attending the Newark Beth Israel Hospital Cardiac Clinic since 1943. During this time she reported periodically in the clinic and her cardiac complaints were minimal but progressive until the summer of 1946. At that time she complained of edema of the ankles and general swelling of the abdomen and was unable to work because of dyspnea on exertion. She required two pillows to sleep. She noted the blood vessels in her neck "stand out". She had a "squeez-

ing sensation" in the lower part of her neck following physical exertion. She noticed a swelling of the dorsum of the hands. It was difficult for her to sleep on her left side because of pain. There were no complaints referable to any other organ or system.

Past medical history was negative except for an attack of rheumatic fever in childhood. She remembered having heard that she had a "rheumatic heart". She had pneumonia at the age of 18. She had three pregnancies, one of which was a miscarriage, prior to the development of a pelvic abscess when she was 20. This was incised and drained. About this time she received anti-luetic treatment following which her blood remained negative. Two years ago she developed an abscessed gland in the neck which was incised. The rest of the medical history is not pertinent.

FINDINGS

Physical examination was negative except for the following. There were enlarged discrete movable lymph glands palpable on both sides of the neck. The axillary nodes in the right axilla were enlarged and palpable but not tender. Her neck veins were slightly distended but did not fill up from below. The lungs were clear and the heart examination was negative except for a sinus tachycardia and a systolic murmur heard over the pulmonary area. The pulse was 106. Blood pressure was 116/82. The abdomen was negative except for the liver which was tender and could be felt 2½ fingers below the costal margin. A fluid wave and shifting dulness were noted. The extremities showed no edema of the hands or feet.

Chest x-ray revealed a fibro-calcification of the major portion of the pericardium. There was reported an exudative productive infiltration involving both upper lobes of the lung, mainly in the right. Fibro-calcific deposits in the axillary lymph glands were noted. The electrocardiograph showed a regular sinus arrythmia and a left axis rotation, low voltage in all leads, diaphasic T waves in the first lead, inverted T waves in leads two and three with slurred QRS. The S.T. segment was elevated in lead four. Venous pressure in the left arm was 13 centimeters. The circulation time was eight seconds for the ether test and twenty-seven seconds for saccarin. Sputa and blood studies were negative and (except for inversion of the albumen-globulin ratio) were normal. Infiltration in both upper lobes reported in the x-ray of the chest had not been noted in the previous chest x-ray films and therefore was considered as a recent lesion. In spite of the diagnosis of chronic constrictive pericarditis, the Medical Service decided to transfer the patient to the Essex County Tuberculosis Sanatorium for treatment and postpone surgery of the pericardium for some future date. She arrived there on August 29, 1947. She remained in the sanatorium until October 5, 1947, during which time all studies for active pulmonary tuberculosis were negative. She was re-admitted to the Newark Beth Israel Hospital on October 25, 1947. At that time the patient stated that during the past five weeks she had nocturnal attacks of dyspnea which would awaken her during sleep. At this admission the physical examination note stated that the heart sounds at the apex were slighly muffled and the



Note extensive plaques of calcification in the pericardium.

pulse was somewhat feeble. Further x-ray of the chest showed resolution of the previously noted infiltration of the upper lobes. Fluoroscopy showed marked restriction of cardiac mobility, particularly of the ventricular myocardium. The liver was enlarged and the neck veins appeared more distended. Venous pressure was 19 centimeters of water. Circulation time was repeated and the ether time was eleven seconds and the saccarin time was twenty-five seconds. Surgical treatment was recommended by the Medical Service and the patient was transferred for surgery.

OPERATION

Operation was performed on December 2, 1947. After induction with pentothal-sodium followed by endotracheal ether anesthesia, a curved left parasternal incision was made from the second to the fifth interspace. The pectoralis major muscle was reflected back from its origin and portions of the third, fourth and fifth cartilages were resected subperichondrally. The internal mammary vessels were doubly ligated and cut. The pericardium was fused with all the pleural surfaces surrounding it. The left pleura was dissected off the pericardium with difficulty and a small hole was made into the pleural cavity during its dissection from the mediastinum. The right pleura was freed from the pericardium

at its anterior surface. The pericardium was found thickened, adherent and tense in the anterior mediastinum. The cardiac motion was very restricted, particularly in the apical region. There were calcific plaques along the lateral, posterior and diaphragmatic surfaces. It was like a porcelain cup with its mouth anterior. The anterior surface of the pericardium was drawn tightly like a drum. When the pericardium was incised vertically from base to apex, the edges spread apart for a distance of an inch. The increasing protrusion of the left ventricle through the enlargening opening in the pericardium during its resection was most dramatic. The pericardium varied in thickness from ¼ to ⅜ of an inch.

The pericardium was dissected and separated from the heart by blunt and sharp dissection over the left apex and left ventricle to the pulmonary artery and the left phrenic nerve. Portions of it were removed with heavy scissors and rib shears. The pericardium was removed from the diaphragmatic surface of the heart from the right ventricle to the inferior vena cava and laterally to the right auricle. The superior vena cava was not visualized. The left pleural cavity was only partly closed with interrupted silk to permit drainage from the pericardial surface. The muscle and fascia were sutured back to the sternum with silk. The skin was closed with silk. No drainage was used and 500 cubic centimeters of blood were given post-operatively. She was placed in an oxygen tent. Post-operative condition was excellent. It was necessary to aspirate the left chest on two occasions; 400 cubic centimeters of bloody fluid were removed the first time and 475 the second. Three weeks after operation under fluoroscopy, the cardiac pulsations were seen to be regular and within normal range. The lung fields were clear.

PATHOLOGIC REPORT

The largest segment of the resected calcific fibrous tissue was 50 by 30 by 4 millimeters. This consisted of dense fibrous tissue with areas of calcification and ossification. No characteristic tuberculous lesions were noted.

COURSE

The patient made an uneventful recovery and was discharged from the hospital on February 16, 1948. During her convalescence she worked in the hospital without any difficulty. She is active now and her only complaint at the present time is occasional attacks of pain at the site of her operation.

SUMMARY

1. A resume is presented of a case of chronic constrictive pericarditis.

2. The etiology, pathology, signs and symptoms of the disease are discussed briefly. In spite of not finding tuberculous lesions, the author believes the etiology was tuberculosis because of the extensive calcification of the pericardium and the glandular and pulmonary x-ray findings.

3. The surgical treatment is given together with a report of a patient with this disease who was successfully treated by cardiolysis and partial pericardectomy.

365 Osborne Terrace

1. Paul, Oglesby, Castlemen, Benj., and White, Paul: Amer. Jour. of the Medical Sciences, 216:4 (Oct. 1948).

2. King, E. S. J.: Surgery of the Heart, The Williams & Wilkins Co., Baltimore, page 619 (1941).

3. Sellors, T. Holmes: The British Journal of Surgery, 33:215 (January 1946).

4. Heuer, Geo. J., and Stewart, Harold J.: Surgical Clinics of No. America, 26:475 (April 1946).

FIFTY YEARS AGO

From the 1899 report on the progress in surgery: "A great deal of trouble has been experienced for want of a perfectly sterilized cat gut. The following method will give good results: take the best A and E violin strings. Soak them in oil of gaultheria;* then keep them in strong alcohol. They are satisfactory to use right out of the alcohol. . ." (Page 104 of the 1899 *Transactions of the Medical Society of New Jersey.)*

* Oil of wintergreen to you.

18th CENTURY MEDICINE IN NEW JERSEY

From the minutes of the meeting of The Medical Society of New Jersey, November 9, 1773: "Dr. Bernard Budd, a member of this Society, having fallen into a most criminal deportment as a public delinquent and offender against the Dignity and Majesty of our most gracious King and Sovereign, the Society unanimously agreed to expel the said Bernard Budd as a person really scandalous and unworthy of the notice of its members"* (Page 35 of the 1773 *Transactions of The Medical Society of New Jersey).*

* This sounds as if Dr. Budd failed on his loyalty test, though the exact nature of the doctor's crime does not appear in any of the old records. Does any medical historian or antiquary have the real story here? At the time of this writing, King George III was still "our most gracious King and Sovereign" but before three years had elapsed he was to be addressed quite differently.—Editor.

STATE ACTIVITIES

GRADUATE COURSES IN NORTHERN NEW JERSEY

The highly successful graduate educational program, sponsored by Seton Hall College, under the auspices of the Essex County Medical Society, will be continued in the 1949-50 season. In addition to didactic lectures, slide studies and seminars, an effective form of actual clinical correlation has been worked out through the efforts of the medical education committee of the Essex County Medical Society. The schedule of courses is displayed in the table on this page.

Physician-veterans are welcome to take any of these courses under public law 346 ("The G. I. Bill of Rights."). Detailed catalogue of courses and further information may be obtained by writing to Dr. Gerald Cetrulo, Director of Medical Education, 40 Clinton Street, Newark 2, N. J.

SETON HALL COLLEGE AND ESSEX COUNTY MEDICAL SOCIETY GRADUATE COURSES FOR PHYSICIANS

Subject	*Days*	*Hour*	*Starting*	*Sessions*	*Fee*	*Instructor*	*Place*
Anesthesiology	Wednesdays	4 to 6	Jan. 18	10	$100	Dr. Rovenstine	C
Biochemistry	Wednesdays	4 to 6	Oct. 12	12	$100	Dr. Cantarow	U
Cardiology	Saturdays	2 to 4	Oct. 8	30	$150	Dr. Gold	U
Electrocard.	Thursdays	4 to 6	Oct. 13	10	$ 60	Dr. Goldberger	U
Endocrinology	Mondays	9 to 11	Nov. 7	6	$ 40	Dr. Sevringhaus	S
Gastro-Enterology	Mondays	4 to 6	Oct. 17	10	$ 50	Dr. Bockus	U
Gynecology	Saturdays	3 to 5	Feb. 18	16	$ 75	Dr. Falk	S
Gynec. Pathology	Saturdays	11A to 1P	Oct. 8	16	$100	Dr. Fein	S
Internal Medicine	Fridays	4 to 6	Oct. 14	20	$100	Dr. Graef	U
Ophthalmology	Thursdays	4 to 6	Oct. 20	10	$ 60	Dr. Elwyn	E
Otolaryngology	Thursdays	4 to 6	Oct. 13	20	$100	Staff	S
Periph. Vascul.	Tuesdays	4 to 6	Oct. 11	13	$ 60	Dr. Redisch	S
Proctology	Wednesdays	4 to 6	Oct. 12	8	$ 50	Dr. Cowett	S
Surg. Anatomy	Mondays	4 to 6	Oct. 10	20	$200	Dr. Lampe	C
Surg. Technic	Fridays	4 to 6	Oct. 14	20	$200	Dr. Lampe	C
Surg. Pathology	Saturdays	9 to 11*	Oct. 8	30	$200	Dr. Fein	S

* Mornings. C—City Hospital, 116 Fairmount Ave., Newark. E—Eye and Ear Infirmary, 77 Central Ave., Newark. S—Seton Hall Campus, South Orange. U—Urban Division, 40 Clinton St., Newark.

MEETINGS OF M-S PLAN TRUSTEES

Regular monthly meetings of the Trustees of the Medical-Surgical Plan of New Jersey are held at 11 a. m. on the fourth Sunday of each month at the offices of the Plan on the 12th floor of the Kinney Building, 790 Broad Street, Newark. Accordingly notice is given that the next two meetings will be on October 23 and November 27.

NEW JERSEY PIONEERS WITH MOTORIZED EYE HEALTH SERVICE

New Jersey's "Mobile Eye Health Service", dedicated to the proposition that no child should ever be permitted to grow up with a visual handicap that modern science can correct, is making history in attacking the problem of such handicaps among the children of our state.

This service was founded in 1946, and its establishment was financed by a generous donation from the Junior Women's Clubs of the state. Using this fund as "seed money", Mrs. Emma Howe, Director of Sight Conservation of the New Jersey Commission for the Blind, organized the first motorized eye service in the United States. Mrs. Howe's first step was to present an outline of the project to The Medical Society of New Jersey, the State Commissioner of Education, and the Advisory Committee to the State Commission for the Blind, all of whom promptly endorsed the program. The original funds were then used to purchase a specially designed vehicle, to furnish it with complete diagnostic equipment for an ophthalmologist, and to engage the part-time services of a qualified ophthalmologist and a technician who also doubles as a driver.

The mobile unit is a large neat, white truck. The interior is divided into two sections, the first section containing a desk and several small chairs to accommodate waiting patients. The second section contains the ophthalmologist's equipment.

The unit was officially presented to the Commission for the Blind at the State House in Trenton on October 12, 1946, coincident with the Annual Fall Conference of the Junior Department of the New Jersey Women's Clubs, who had made the entire project possible.

A survey made by the Commission during the war had revealed the inadequacy of ophthalmologic services in many counties of the state, particularly in rural areas. Service to school children in these areas seemed the logical starting point. In November, 1946, operations started in Morris County in cooperation with the county superintendent of Schools and parochial school authorities. In this and succeeding counties, the first step has always been to inform the county medical society of the program and to ask their cooperation in bringing the plan into that county. Thus far, the program has operated in Morris, Gloucester, Atlantic, Camden, Cumberland, Salem, Cape May, Somerset and Burlington Counties. During the coming school year, the eye service will be given to Hunterdon, Mercer and Warren counties.

When the service enters a new county, a number of geographical centers are set up on public school property, in which the service is to be offered. The school medical and nursing services then review their records and list all the children found to have 20/40, or less, vision, making special notations after conference with the teachers as to individual reading difficulties. These children with low vision are then brought to the center by nurses, parents or volunteers. Children thus referred to the clinic are then examined and diagnosed.

The principal, teacher and nurse determine which of these children can be considered eligible for free treatment and financial aid, if glasses are needed or other expenses incurred. Those whose parents can afford to pay for eye care are referred to local ophthalmologists or family physicians. Others are examined by the service ophthalmologist who writes prescriptions for glasses if necessary. The school nurses obtain money to pay for the glasses or the recommended treatment, for indigent patients, from the local Parent-Teacher Association, service clubs or other sources.

To date the Mobile Eye Health Service has served approximately 7000 children in public, parochial and state schools in nine New Jersey counties. Of 5036 public and parochial school children examined by the clinic thus far, 1350 were referred to local ophthalmologists and family physicians; 856 have had glasses prescribed by the clinic's own ophthalmologist and 149 have been recommended for surgery. Private ophthalmologists have found that the diagnostic work of this unit has resulted in many patients being referred to them that they would not otherwise have seen.

The service makes return trips to counties which have been originally covered in order to check with the school nurse on the follow-up care. The purpose of the Mobile Eye Service is not only to detect children with impaired vision and to establish efficient follow-up procedures for all serious eye defects, but also to focus attention on the desirability of periodic examinations of the sight of all children in order to safeguard eye health. The Mobile Eye Service is only a *part* of the school health program, and emphasis has been directed to the importance of adequate lighting conditions, proper seating arrangements, regular eye tests, and the alertness of nurses and teachers to signs of eye trouble among the children.

With only one unit operating three days a

week, it is clearly impossible to provide this service at the present time for all the children in the state, but solid progress is being made in covering areas where normal community facilities are least available.

New Jersey physicians may rightly take pride in the Mobile Eye Service as a unique and integral part of the developing program of adequate medical service for all the people of New Jersey.

HEALTH INSURANCE NOT A PARTY ISSUE

The Democratic National Committee has been severely criticized by one of its own members for "the misuse of the good offices of this Committee in support of compulsory health insurance".

At a meeting of the National Committee a vigorous protest was presented in the form of a statement by Dr. R. B. Robins of Camden, Arkansas, Democratic National Committeeman.

Endorsement of compulsory health insurance, Dr. Robins charged, threatens to "read out" of the Democratic party hundreds of thousands of persons now on record as opposing government control of medicine.

"The Democratic party," Dr. Robins explained, "is *not* on record in its party platform as favoring compulsory health insurance. At the Philadelphia convention last year, the Democratic party announced support of a national health program for expanded medical research, medical education and hospital and clinic facilities. This does not constitute recommendation of compulsory health insurance.

"The compulsory health insurance is a bad penny that turns up every few years. It has never obtained sufficient support to merit incorporation in the platforms of either of the major political parties. It has never obtained sufficient support to be legislated in Congress. The reasons are apparent. In every large nation where government medicine has been attempted, there has been a decline in the quality and quantity of medical services and an increase in their cost. Only borrowed American dollars prevent its utter disintegration in these same countries today.

"Admittedly, some way must be found to take the financial shock out of illness. Voluntary health plans are one answer. The proof of this is the rapid growth of these plans. More than 60 million Americans are now insured against the expense of major illness through these plans. They are not yet perfect, but they are being improved all the time, both as to range of coverage and benefits.

"There is a wealth of factual material, including a study by the impartial Brookings Institution, in support of the argument that the voluntary way is the best way to meet the need for budget-basis medical care.

"Not only are hundreds of thousands of physicians and dentists opposed to government-controlled medicine, but there are more than 1500 civic, service, veteran and other organizations, with memberships totaling millions, that have gone on record against it.

"Do we (the Democratic party) want to serve notice on these millions that they are not wanted by this party because they have gone on record against socialized medicine? Compulsory health insurance is repugnant to the ideals and convictions of the American people."

CANCER FILMS

A unique color television demonstration of surgical and medical procedures in the diagnosis and treatment of cancer is announced for Saturday, October 29, at the Hotel Biltmore in New York City. The demonstration will operate continuously from 9 a. m. to 4:30 p. m. Sponsored by Smith, Kline and French Laboratories, it is under the joint auspices of the American Cancer Society, the Sloan-Kettering Institute, and the Memorial Hospital. All physicians are invited to stop and see this unusual presentation.

PRESCRIPTION HABITS AND THE FEDERAL FOOD AND DRUG ACT

While the Federal Food, Drug and Cosmetic Act has been regarded as concerned essentially with questions of accurate labeling, prevention of adulteration and safety, its provisions, on the basis of recent court decisions go beyond such concepts. Among the restrictions placed on prescribing and dispensing habits are several concerned with prescription items and refills. The physician must have a proper understanding of these restrictions to prevent misunderstanding and embarrassment for himself or for his patients and the pharmacists. Under the act a prescription is a written order by the physician for a specific quantity of drug to meet a patient's specific needs. A prescription, then, *cannot be refilled,* according to current interpretation of the Federal Food, Drug and Cosmetic Act, without specific authorization of a physician. To refill the prescription without authorization is equivalent to an over-the-counter sale. Over-the-counter sale of drugs that are prescription items is prohibited by law, and *pharmacists are not permitted to dispense prescription items without a prescription or to refill such prescriptions without specific authorization.* The physician must authorize as many refills as he believes are necessary for the patient at the time he writes the prescription. If such authorization is missing from the original prescription the pharmacist must assume that the physician intended the prescription be filled only once. The physician can issue instructions later for refills if such action seems indicated. These later instructions must be issued directly to the pharmacist and not indirectly through the patient.

Prescription drugs are those which carry on the label a statement such as "Caution: To be dispensed only by or on the prescription of a physician" (or dentist or veterinarian). If such a legend is not present on the label, then the item presumably is a so-called non-Rx legend drug, in which case the labeling must bear adequate directions for use—which means for self medication. If a drug bears an Rx legend it cannot be sold without a prescription.

At times pharmacists must place on a prescription label certain warnings; for example, "Warning: May be habit forming". This is done if the drug is a narcotic or hypnotic substance named in the Federal Food, Drug and Cosmetic Act if (a) the doctor does not mark the prescription order as not refillable or (b) refilling is not prohibited by local law. If the physician specifies in the prescription order that it may be refilled a certain number of times at stated intervals, and that it is not refillable after the last filling, none of the dispensed material is required to bear the warning label.

Another warning that occasionally must be placed on the prescription label by the pharmacist is one associated with certain potent drugs. The Food and Drug Administration has decided that thiouracil, propylthiouracil and pentaquine must bear a warning because of the possibility of untoward reactions from the use of these drugs. This warning reads: "Warning: This drug may cause unfavorable reactions in some individuals. Your physician has explained or will explain to you the symptoms that must be watched for and precautions that must be taken to guard against ill effects. Do not take in larger doses, or for a longer time than specifically directed by the physician."

Physicians who dispense as part of their professonal practice and who by oral statements impress on the patient adequate directions for use and warnings about unfavorable reactions are not subject to the labeling requirements of the law that apply to pharmacists in filling prescriptions. Nevertheless, *it would be in the interest of safety for such a physician to supplement his oral directions and warnings with label notations on the dispensed package.*

Physicians whose dispensing is not a bona fide part of their professional practice are subject to the same requirements that apply to pharmacists.

The Food and Drug Administration does not issue an official list of drugs which may be sold only on prescriptions. However, any item that bears the prescription legend is limited to issuance by prescription for such an item must be written, as oral prescriptions can be recognized by a pharmacist only in times of emergency.

Abstracted from J.A.M.A. 140:1157

October is called the "Red Feather Month" because that is when the Community Chests conduct their annual campaigns to support more than fourteen thousand Red Feather services for local health, welfare and recreation.

A legless man may not be able to run a race —but he *can* run a machine. Red Feather services help handicapped persons learn how to support themselves. It's a Community Chest program! Give now!

SUPPLEMENTARY LIST No. 7 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Arndt, Frank R., 7500 Bergenline av., No. Bergen (9)
Cassio, William L., 226 Norfolk st., Newark (7)
Flax, Jacob L., 31 Lincoln Park, Newark (7)
Galotta, Margaret L., 553 Prospect st., Hackens'k(2)
Irving, Henry C., 27 Warner av., Jersey City (9)
Kearney, Paul A., 12 Woodcraft pl., Short Hills (7)
Minnella, Thomas J., 268 Springfield av.,Summit(20)
Perkel, Harold, 441 Boulevard, Bayonne (9)
Richardson, Arthur H., 60 Orange rd., Montclair (7)
Roth, Samuel R., 31 Lincoln Park, Newark (7)
Shack, David N., 712 Clinton av., Newark (7)
Small, E. Lester, 30 Branch st., Medford (3)

OBITUARIES

DR. LINUS W. BAGG

Dr. Linus W. Bagg, Basking Ridge, died on August 5 following a long illness.

Dr. Bagg was born in Rensselaer, N. Y., in 1880. He began practicing in Newark shortly after graduating from Syracuse University Medical School in 1906. He lived in Newark until 1927, when he moved to Montclair. He was on the Presbyterian Hospital surgical staff for over 30 years, and was a member of the courtesy staff of All Souls' Hospital and Memorial Hospital of Morristown. Dr. Bagg had practiced in Basking Ridge since 1942. He was an ardent yachtsman and also raised fancy goats and rabbits on his farm.

DR. HOWARD A. KNOX

Dr. Howard A. Knox, New Hampton, specialist in heart and rheumatic diseases, died on July 27 at the age of 64. A former superintendent of the Ellis Island Hospital, New York Harbor, and a veteran Army physician, he served the U. S. Public Health Service for four years before coming to New Hampton.

Dr. Knox graduated from Dartmouth College Medical School in 1908, and was appointed to the Army Medical College, from which he was graduated as a lieutenant in 1910. In 1916 he entered private practice in Bayonne and served on the hospital staff in that city until his transfer to New Hampton. Dr. Knox was active in religious and fraternal organizations.

DR. THOMAS K. LEWIS

The death of Dr. Thomas K. Lewis on August 28, deprived the people of southern New Jersey of one of their most beloved and widely respected practitioners, and meant to the organized medical profession, the loss of a valiant and effective top-level leader. Born in Pennsylvania, in 1887, Thomas Lewis was graduated from Haverford in 1909 after a career in which he won top distinction for both athletic and scholastic activities. He received his M.D. from the University of Pennsylvania in 1913, interned in the Cooper Hospital in Camden, then went to Mexico where he was a medical officer under General Pershing. At the outbreak of World War I, he was assigned to service in France, and rose to become commanding officer of the ambulance corps of the famous Rainbow Division.

Returning from service in 1919, he entered practice in Camden, and from that day on, was active in civic, fraternal and medical affairs in the South Jersey metropolis. He was, in order, president of the Camden City Medical Association, the Camden County Medical Society, The Medical Society of New Jersey, the state's Medical-Surgical Plan and the New Jersey Medical Service Administration. Since the beginning of World War II, he had been a member of the House of Delegates of the American Medical Association and was our state's senior delegate at the time of his death.

He was an internist with a more than local reputation in his specialty. He was appointed to the staff of the Cooper Hospital in 1922, and rapidly rose through the various grades, eventually becoming chief of the medical service.

For editorial comment on the death of Dr. Lewis, see page 459 this issue.

DR. ARCHIBALD E. OLPP

Dr. Archibald E. Olpp, former Congressman, died on July 26 in Hackensack Hospital.

Dr. Olpp was born in Bethlehem, Pa., in 1882, and was graduated from Lehigh University in 1903 where he remained as an instructor in chemistry until entering the Pennsylvania School of Medicine. After receiving his M.D. degree in 1908 he instructed biological chemistry at the College of Physicians and Surgeons at Columbia University for a year.

Dr. Olpp had been a resident of Cliffside Park for the last 23 years and had practiced in Union City for more than 40 years. He was general surgeon at North Hudson Hospital from 1908 until 1920 and returned in 1931 as vice-president of the staff, senior staff surgeon and chairman of the clinical society.

VIEWS AND REVIEWS

What Patients Think of Doctors

In treating human maladies, physicians lay primary emphasis upon correct diagnosis. The same principle obtains when we attempt to treat the body politic through the various technics of public relations.

Most large industries proposing to invest hard money in a public relations program first engage the services of a competent public opinion research organization to feel the public pulse—to determine, if possible, in exactly what ways the public thinks that industry has fallen down on the job.

We suspect that medicine has not used this diagnostic technic often enough, or with sufficient thoroughness to find out what the public really does think about doctors and their activities, scientific or social. Some public opinion surveys conducted by certain medical organizations in the past have been specially angled to develop a preconceived answer or to prove a special point. Seldom, indeed, has medicine used modern opinion sampling devices frankly to probe public sentiment candidly, letting the chips fall where they may.

This fact lends more than usual interest to a recent survey conducted for the National Society for Medical Research by a reputable opinion testing agency. In this survey, many questions were asked relative to the practice of medicine, animal experimentation, etc., but two questions of a general nature produced some fairly revealing results.

The public was asked first, "What is your opinion of *most* doctors today?" and "Why do you feel this way?". Nearly half of those asked (46 per cent) expressed the opinion that most doctors are well trained and competent. In elaboration of this point of view, the qualities most often checked were that most physicians are "hard working and conscientious"; also, that they are "friendly, interested, and humanitarian". Some fourteen of every hundred people queried, merely expressed a general, unexplained approval of doctors generally.

But it's on the debit side of the ledger that we find the cues that may profit us most, if they flatter us least. Most frequent complaints against doctors, generally, were that they are "too mercenary"; "cold, unfriendly, and lack personal interest"; that they are "incompetent and poorly trained", or "too narrow in training and outlook".

When these same people were asked: "Do you think most doctors are *too* interested in making money from their patients or not?", 57 per cent said they thought most doctors are not. 35 per cent thought most doctors are too interested in making money, and 8 per cent said they don't know. The 35 per cent who thought most doctors are too interested in making money from their patients were asked "What makes you feel this way?". Many of this group mentioned more than one complaint but nearly one third of the 35 per cent assert that doctors' fees are too high. One out of five complained that most doctors' "Won't treat you unless you have the money, won't take poor patients, won't answer calls if a bill is outstanding, etc."

Thirteen per cent of this sub-group charge many physicians with giving unnecessary and expensive treatments in order to boost their bills, or arranging unnecessary consultations in order to split the fee, or assert that they "keep you coming back".

Smaller proportions of this discontented group charge doctors with unwillingness to make home calls and night calls or complain that they "rush from one patient to another to get as many as they can".

It seems to us that it is particularly significant that among this dissident group of patients, only 2 per cent found fault with physicians for "opposing low cost medical care plans".

If we have here a reliable sample of public opinion—and we have every right to so assume—then, at least insofar as the attitudes of individual doctors are concerned, the public isn't critical of or antagonistic to the individual doctor's point of view on medical economic questions.

This observation leads us to suggest that it might be interesting to find out what a similar cross section of public opinion would record in respect to medical societies.

It seems to us that such a survey as this not only points up the weak spots in the private public relations of practicing physicians but, inferentially, at least, it confirms that doctors usually can expect a sympathetic hearing for their sentiments in regard to medical social questions. We hope that's not an untenable inference.

Churchmen and Socialized Medicine

Although many official church bodies have adopted resolutions opposing compulsory health insurance, churchmen are by no means unanimous in this conviction. As a matter of fact, the Reverend Mr. Alson J. Smith, of Stamford, Connecticut, testifying before a Congressional Committee for the Methodist Federation for Social Action recently expressed the view that "most American churchmen support the idea of compulsory health insurance".

We don't know what evidence the Reverend Mr. Smith could or did furnish to support the use of the term "most"—but we do know that what he says is true of many.

As the *Ohio State Medical Journal* points out, the clergy "is exposed to many pathetic situations—hear plenty of stories of sorrow and hardship. They want to see something done to remedy these situations and problems. So does the medical profession".

Our Ohio contemporary suggests that doctors should make it their business to tell their pastors "what the medical profession stands for and what it is trying to do to meet these problems". "Some ministers", he observes, "think the medical profession is still in the do-nothing stage".

Of transcendent importance, in our opinion, is the need of pointing out to the clergy what socialized medicine would do to the integrity of the individual—his sense of personal responsibility and his scope of personal freedom of choice.

It seems to us there is an extremely close relationship between governmental monopoly of medical care and governmental interference in religious affairs.

Our Broader Responsibility

Dr. Raymond B. Allen, president of the University of Washington and presently Director of Medical Services in the National Military Establishment, addressed the 59th Annual Meeting of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons on the topic "Medicine's Response to the Challenge of our Time".

Observing that medicine is focusing its attention increasingly on man as a social organism, Dr. Allen suggested that our greatest contribution in the future will spring from an understanding of those subtle forces which determine man's reaction as an individual in his constant struggle to find happiness amidst the shifting scenes of our present day world.

The individual human being today is caught up in forces far beyond his personal control. Too often this sense of individual helplessness or futility leads us to wash our hands of responsibilities which will be preempted only too readily by those who would welcome an opportunity to manage our destinies.

Dr. Allen mentions a few of the major problems toward the understanding of which physicians, by their training, should be able to make a special contribution. Perhaps most important for us to realize is the stark fact that the world's population is increasing faster than man's capacity to supply all his basic needs. Compared with other parts of the world, our American resources are abundant, but we cannot ignore the basic problems faced by mankind elsewhere.

While physicians must continue to serve individual patients with all their knowledge and skill, they have a special responsibility, in company with other community leaders, to assist every serious effort to make a more satisfactory adjustment of man to his world, or vice versa. This involves various pursuits, such as aiding in all conservation programs, supporting educational and research activities, studies of the need of population control, the provision of educational opportunities through the United Nations, and other problems global in scope which can be solved only through broader education in the scientific and technical factors through which these problems can be managed.

Only by these means and by good will and cooperation, Dr. Allen pointed out, can man arrest the downward spiral of our civilization.

The services of medicine like those of religion have been largely personal. Medicine of the future, Dr. Allen feels, must progress as a social as well as a biologic science and must broaden its outlook accordingly. Medicine is coming of age as a social science in the service of mankind. This must be medicine's response to the challenge of our time.

The Medical Secretary and the Medical Society

Here and there throughout the country, medical societies have recognized the strategic importance of the doctor's secretary in keeping him informed of his responsibilities to his profession at large and in helping him to promote the sound private relations with his patients and friends which are the basic component of good medical public relations.

The Ohio State Medical Association, for example, recently published a manual for the doctor's secretary. Still more recently, we came across a letter published in the *Pennsylvania Medical Journal* for August 1949 un-

der the caption "Doctor, Don't Read This Letter But Be Sure Your Secretary Does!".

This letter, purporting to be a communication from one doctor's secretary to another, passes on "a few tips that I have found helpful to both the doctor and myself". Acknowledging that the doctor's mail is voluminous beyond his ability to read it all himself, this secretary makes " a special effort to bring to his attention all mail pertaining to the activities of the state and county medical societies". She has alerted herself especially to the new material arriving in connection with the National Education Campaign, which she puts "on top of the pile". . . . Good girl!!

"Then, when I place it on the doctor's desk", his secretary writes, "I point out those pieces with which I can help. . . . I make it a point, too, to see that our waiting room table has plenty of pamphlets about government medicine and voluntary health insurance plans. . . . I also use the pamphlets as bill enclosures. We ordered a good supply of the stickers about compulsory health insurance, too, and they go out on every envelope."

This medical secretary thinks it's a good idea for every doctor's secretary to know the facts about Blue Shield and Blue Cross so that she can answer questions that patients may ask her in regard to the service. In fact, this particular secretary asks each new patient coming into the office if he has Blue Shield coverage. If he already belongs, she enters his agreement number on his case history card. If he is not a subscriber, she explains the advantages of voluntary prepayment sickness insurance and tells him how he may join Blue Shield.

"After all", says she, "my job would be a lot tougher if we get a system of socialized medicine so I want to help the doctor fight it." Perhaps it is true that individually and as a group we have paid far too little attention to the enormous potential help that might be most readily and tactfully given us by each doctor's office secretary.

The Care and Treatment of Congressmen

Doctors are being exhorted frequently to communicate with their Senators and/or Representatives, not only in regard to medical legislation, but also as ordinary citizens on a variety of matters. One naturally wonders how he may best gain and hold the attention of a legislator. The *Wisconsin Medical Journal* for June 1949 offers the following information, apparently obtained from a Senator himself:

"The eight pointers listed below were named by a United States Senator as the most effective procedures in bringing to the Congressman the opinions of his constituents:

1. *Personal conversation* with Congressman at home.

2. *Telephone conversation.* If a personal conversation is impossible, then speak to him over the telephone.

3. *Hand-written letter.* If a personal conversation or telephone conversation is impractical, then write a letter in longhand. It does not need to be lengthy but should clearly demonstrate the writer's point of view.

4. *Typewritten letter.* A typewritten letter is not as effective as a letter written in longhand because it seems not to indicate the amount of effort given to a letter written in longhand.

5. *A telegram.* A telegram is less effective than any of the preceding because it is usually brief, frequently indefinite, and there is nothing to indicate certainly that the signer was the sender.

6. *Resolutions.* The effectiveness of resolutions can be increased by follow-up on the part of the senders, in one of the ways mentioned above.

7. A representative of a national organization of which the constituent is a member may call upon the Congressman as a follow-up to the constituent's message with the endorsement of the national organization.

8. Petitions are of little value. Effectiveness is directly related to personal relationship established by constituents."

Advice to Younger Physicians

One of the most useful exemplars of the medical profession in New Jersey, Dr. Stanley Nichols of Long Branch, recently addressed the younger members of the Monmouth County Medical Society on the special responsibilities and opportunities of younger physicians these days.

"One of our first duties," he said, "is personally to see that low income families get good quality medical service, preferably in our private practices. Some special hospital clinics are necessary," Dr. Nichols conceded, "but for many obvious reasons many hospital clinic services are not as good as your office can render".

"Second", he urged, "see that all children get the best possible medical services". The health needs of children and low income workers, he pointed out, "have great sentimental appeal which has been exploited and vastly exaggerated by those who would first socialize and then communize our fine American democracy".

"The third and most immediate need", Dr. Nichols said, "is that each of you who has not already done so should do his part by becoming active in one of the 54 voluntary health organizations that compose our Monmouth

County Health Council, which is the first county health council (exclusive of large cities) to be formed in this country. The American Medical Association and other health organizations have recently stated that the best way for a county medical society or any other interested group to bring good medical and other health services into being is to form and support community health councils."

In elaborating upon his first admonition, Dr. Nichols has suggested that perhaps young private physicians might, through their county medical society, set aside a special hour or two each week to be known as a "Medical Service Hour" or by some such title—during which time they would render private medical care at a specially reduced fee for patients of the class who ordinarily would seek such services in the public clinic. In this way, he pointed out, the private physician will expand his circle of practice and be enabled to offer medical service of the same quality and under the same conditions as obtain for the well-to-do, to patients not so fortunate.

J. E. B.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

"Conference maketh a ready man"—Bacon's Essays

We owe a debt of gratitude to the splendid women who established our Auxiliary, and to those who followed to carry out their dreams and mold them into realities. The great trust now descends to new hands. We can win no laurels; earlier and worthier hands have earned and gathered them all. Nor are there places for us by the side of Mrs. John O. McReynolds of Dallas, Texas, who in 1917 became the first County Auxiliary President because she sensed the need of physicians' wives to join together in a cooperative effort. Nor can we equal Mrs. Clark Red of Houston, Texas, who, as State President in 1922, conceived the idea of a National Auxiliary. Finally there are our own New Jersey "greats". Mrs. Samuel Barbash who organized the State Auxiliary, June 9, 1927, and our so well remembered first State President, Mrs. A. Haines Lippincott, who guided it so capably during its infant years.

But there remains to us a duty of preservation, and there is opened to us a noble pursuit to which the spirit of the time strongly invites us. Our proper business is *improvement*. Let our age be the age of improvement. Let us advance the works of our founders. Let us develop the resources of our organization, call forth its powers, build up its strength, promote all its great interests, and see whether we also, in our day and generation, may not perform something worthy to be remembered. Let us cultivate a true spirit of union, harmony and cooperation.

Start *today* by writing me a card or letter containing one or more suggestions on how we may give our members more informative and streamlined Board meetings. Tell me your ideas on what we should eliminate as unnecessary, and finally, how our Annual Convention meeting could be improved so that the most benefit may be derived.

It is up to *you* to help meet this challenge. With your help our present Auxiliary may itself become a vast and splendid monument of progressiveness upon whose firm foundations future generations may advance.

Mrs. Norman Nathanson

BOOK REVIEWS

Care of the Surgical Patient. By Jacob Fine, M.D. Pp. 544. Philadelphia, W. B. Saunders Company, 1948. ($8.00)

This one volume attempts to cover all systems of the patient and all the surgical conditions that may befall him. It is an encyclopedia on overall care of the surgical patient, aimed especially at those physicians who are not specialists but who deal with surgical cases. Chapters on electrolyte balance, nutrition, and post-operative complications are especially timely and well presented. In the chapters on pre- and post-operative care, the author details innumerable hints for the comfort of the patient. He stresses the psychologic approach both to the normal and neurotic patient. The section on clinical and laboratory methods in-

cludes a discussion of blood groupings, laboratory procedures, clinical chemistry and clinical pathology which is of great value to the hospital resident as well as to the attending surgeon.

Meyer J. Kern, M.D., Newark.

Regional Ileitis. By Burrill B. Crohn, M.D. Pp. 229. New York, Grune & Stratton, 1949. ($5.50)

It is fitting that Dr. Crohn, one of the original authors describing regional ileitis as a disease entity, should now be the writer of this succinct monograph. His experience is vast and authoritative yet he approaches his subject with humility and fairness.

In logical sequence the monograph discusses chronic regional ileitis reviewing its clinical features through its modern treatment. Sections are devoted to acute regional ileitis, ileo-jejunitis and ileo-cholitis. Seasoned comments are in evidence throughout the entire volume. The section dealing with treatment both medical and surgical is especially commendable. Although a staunch advocate of primary ileo-transverse colostomy with exclusion of the diseased bowel rather than primary resection of the bowel in chronic ileitis, he gives an impartial and fair view of other authorities' opinions and attack on the problem. This well-illustrated monograph contains all the material necessary to give its reader a clearcut and thorough concept of regional ileitis.

Herbert Greenfield, M.D., Newark

Dental Caries. Ed. by Kenneth A. Easlick, D.D.S. Pp. 234. St. Louis, C. V. Mosby Company, 1948. ($5.00)

This volume reports the proceedings of the University of Michigan School of Dentistry Inservice training course on dental caries control. Some 114 people in all representing private dental practice, public health practice, dental research, health and dental education, biostatistics, nutrition, bacteriology, biochemistry and pediatrics, took part in the discussions and the work of the six evaluation committees established by the Conference. The validity of the data presented by the lectures was critically checked in the available literature in dental caries. These evaluating committees concerned themselves particularly with (1) the mechanism of the caries process; (2) the relationship of systemic conditions to the caries process; (3) the effectiveness of prophylaxis, toothbrushing, chewing gum, dentrifices and mouthwashes in the control of caries; (4) the utilization of fluorides and silver salts in the control of caries; (5) the relationship of ingested vitamins and minerals to dental caries; and (6) the contribution of various types of diet to caries control.

E. J. H. Schneider, D.D.S.

Manual of Medical Emergencies. By Stuart C. Cullen, M.D., and E. G. Gross, M.D. Pp. 267. Chicago, The Year Book Publishers, Inc., 1949. ($3.75)

The fact that one's practice is limited to a specialty does not excuse any doctor from applying his general professional knowledge when called on by a distraught layman to take care of an emergency. This book covers almost every emergency situation with clarity, thoroughness and practicability. It takes but a short time to read, and the material is presented in a logical clear-cut fashion, so that it should be readily retained.

The authors first outline general principles, placing proper emphasis on (1) life-saving therapy that should precede diagnostic measures, (2) establishing the correct diagnosis, and (3) definitive treatment. Diagnostic pitfalls are clearly pointed out. Much of the book is justifiably devoted to the management of anoxia, with detailed consideration of the administration of oxygen, artificial respiration, tracheotomy, and other measures. This is followed by brief, but adequate, sections on cardiac emergencies, shock, poisonings, allergic manifestations, coma, head injuries, and many other emergencies. There is also a section on the technic of venipuncture, and a list of valuable drugs.

Aside from the content of the book, the authors should be cited for their lucid style, the avoidance of excessive verbiage, and the clever cartoons which enliven the book and illustrate many points.

Roland D. Goodman, 2nd, M.D.

Medicine Throughout Antiquity. By Benjamin Lee Gordon, M.D.; foreword by Dr. Max Neuburger. Pp. 818 with 157 illustrations. Philadelphia, F. A. Davis Company, 1949. ($6.00)

A vast amount of material is analyzed in this readable and enjoyable text. Most other histories of medicine dwell too briefly on pre-Roman and Greek times. This is not true of this book. Prehistoric and protohistoric medicine sections are followed through the Greco-Roman period, the age of Ionic philosophy to the fall of Rome. Oriental and Talmudic medicine receive thorough treatment. The scholarship of Dr. Gordon is marvelous.

Frequent reference to modern thought among the ancients keeps the entire subject matter fresh. This book is a valuable addition to the library of every physician.

Irving Shapiro, M.D.

Histology and Histopathology of the Eye and Its Adnexa. By I. G. Sommers, M.D. Pp. 784. New York, Grune and Stratton, 1949. ($12.00)

An attempt is made in this text book to present the pathology of the eye much in the manner in which a textbook of general pathology presents its material. It is an honest effort to bridge the gap between the ophthalmic pathologist and the general pathologist.

The subject matter of the book is arranged in an orderly, stimulating manner. Its first part deals with normal histology, embryology, and the usual changes of senescence. The second part discusses general pathology in relation to the eye. The third part is given to a description of the histopathology of the eye upon a basis of regional anatomy plus special sections on developmental anomalies, myopia, glaucoma, injuries, and surgical complications.

Each portion of the book is followed by a section called "reading of Source Material" consisting of brief abstracts from related literature. A huge bibliography is given.

Jonathan L. Harris, M.D.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

NEW RESPONSIBILITY FOR THE PHYSICIAN IN COMPLETING DEATH CERTIFICATES

F. M. SAYBOLT, M.S.P.H., Assistant State Registrar

On January 1, 1949, the New Jersey State Department of Health joined with other state, national and international governments in using the new *International Statistical Classification of Diseases, Injuries and Causes of Death* as a standard. Formerly selection of the primary cause of death depended upon *what* causes were reported rather than *how* the causes were listed. The assignment of the death for statistical classification, when more than one case was reported, was based upon an arbitrary "cause priority schedule" known as the *Joint Cause Manual.*

Such a method of selection has, over the years, led the physician to insert the causes of and the conditions leading to death without specifying the *primary* cause or giving any logical sequence to his entries. He knew only too well that his choice might be ignored when allocation was made in accordance with the rigid rules of the *Joint Cause Manual.*

The latest revision of the *International List of Diseases, Injuries and Causes of Death* recognizes the importance of the medical practitioner's knowledge of his patient. It acknowledges that the doctor is in a better position than any other individual to specify the morbid condition which led directly to death and to state the antecedent conditions, which gave rise to this cause. If the physician will give a plausible sequence of conditions which led to the death he can be assured that it will be charged to that condition which he has designated as the underlying cause. Underlying cause is (1) the disease or injury which initiated the train of morbid events leading directly to death, or (2) the circumstances of the accident of violence which produced the final injury.

NEW MEDICAL CERTIFICATION FORM

The form of the new medical certification is probably familiar to all physicians by this time. It consists of two parts which may be designated for convenience as:

I (a) Direct cause of death due to
(b) Intervening preceding cause, due to
(c) Underlying preceding cause.

II Other significant conditions contributing to the death but not related to the disease or condition causing it.

The physician should report in Part I the cause leading directly to death on line (a) and also the antecedent or preceding condition on lines (b) and (c) which gave rise to the cause reported in line (a), the underlying cause being stated last in the sequence of events. If the cause stated in line (a) completely describes the train of events, no entry is necessary in lines (b) and (c).

If Part I is properly completed and makes medical sense, any conditions listed elsewhere on the certificate will be ignored. In the absence of a plausible sequence of events or a true underlying cause of death in Part I, then all conditions reported will be considered and the determination of the primary cause will be made in the office of the New Jersey State Department of Health.

FIRST QUARTER SHOWED GOOD REPORTING

An examination of death certificates received during the first quarter of 1949 revealed remarkably good reporting by most physicians. A few reports failed to maintain a high level of plausibility. Some could not be classified without querying and others were classified in accordance with international rules provided for cases where the physician has given improper sequence or has failed to segregate the causes in Parts I and II. The carelessness inherent in the preparation of these reports can best be shown by listing the causes and manner of reporting the causes by the physician and adding a column showing the disposition of the certificates by the New Jersey State Department of Health. This has been done in the accompanying table.

It is anticipated that with greater care in the completion of death certificates by physicians medical and public health research which is dependent upon statistics generated from mortality records will have a stronger foundation on which to build.

MEDICAL CERTIFICATION BY PHYSICIAN

Certificate Number	*a*	*b*	*c*	*Part II*	*Major Findings of Operation*	*Cause of Death Assignment by State Office*
1	Uremia	.....	.....	.....	.....	Query for cause
2	Carcinomatosis	.....	.....	.....	.....	Query for primary site
3	Fractured pelvis	.....	.....	.....	.....	Query for details
4	Acute nephritis	.....	.....	.....	.....	Query for cause
5	Cerebral sclerosis	.....	.....	.....	.....	Query to determine if arteriosclerosis was meant
6	Congestive heart failure	.....	.....	.....	.....	Query for cause
7	Circulatory failure	Previous heart disease	.....	Diabetes	.....	Diabetes mellitus
8	Shock—postoperative	Internal hemorrhage—probably	.....	.....	Adenomyosis of uterus	Other benign neoplasm of uterus
9	Carcinoma of vulva and bladder	Cachexia—Carcinomatosis	Anaemic—secondary (hypochrondiac)	.....	Adenocarcinoma	Malignant neoplasm of other and unspecified sites
10	Carcinoma of bladder	Hypertensive heart disease	.....	.....	Carcinoma of bladder	Malignant neoplasm of bladder
11	Alcoholism	Paresis	Fractured left hip	.....	Fractured left hip	Unspecified fall
12	Diabetes mellitus	Arteriosclerotic cardiovascular disease	Uremia	.....	.....	Myocardial degeneration with arteriosclerosis
13	Cerebral hemorrhage	Diabetes	Arteriosclerosis	.....	.....	Diabetes mellitus
14	Senility	Arteriosclerosis	Senility	.....	.....	General arteriosclerosis
15	Aortic and mitral regurgitation	Lues	Chronic prostatitis	Injury to chest—fractured ribs	.....	Other cardiovascular syphilis
16	Primary? Adenocarcinoma of liver	Arteriosclerotic heart disease	.....	.....	.....	Malignant neoplasm of liver
17	Carcinoma of breast	Chronic myocardial disease	.....	.....	Carcinoma of right breast	Malignant neoplasm of breast
18	Carcinoma of left breast	Metastatic carcinoma of bones	Secondary anemia	.....	Carcinoma of left breast	Malignant neoplasm of breast
19	Cerebral apoplexy	Arteriosclerosis nd diabetes	.....	.....	.....	Cerebral hemorrhage
20	Diabetes mellitus	Myocarditis with hypertension	Arteriosclerosis	Gangrene—left heel	.....	Diabetes mellitus
21	Diabetes mellitus	Diabetic coma	Arteriosclerosis	.....	.....	Diabetes mellitus

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **October, 1949** **No. 10**

EVERYONE concerned with tuberculosis control depends upon mortality figures as the mariner does upon the sun and stars. They show how far we have come and what remains to be done before tuberculosis finally disappears. The current figures show progress but they also bring to our attention the importance of more intensive work with older age groups in planning the attack upon tuberculosis.

TUBERCULOSIS MORTALITY IN THE UNITED STATES, 1947

In 1947, there were 48,064 deaths from tuberculosis in the United States. The death rate was 33.5 per 100,000 population, which was 8 per cent below the rate for 1946.

This decrease in the tuberculosis death rate continued the downward trend which has prevailed with few interruptions since 1910. Of the total deaths from tuberculosis in 1947, more than ninety per cent were attributed to respiratory tuberculosis. For both respiratory and nonrespiratory infections, mortality was much greater for nonwhites than for whites and greater for males than for females.

Death rates for tuberculosis in the white population and for nonwhite males were lower in the young adult years than in the older age groups, while for nonwhite females the highest rates occurred in the young adult group. Among all young adults, the rates were higher for females than for males; among older persons, the rates were much higher for males. The rates for nonwhites were far above those for whites in all age groups except 75 years and over.

Death rates for tuberculosis were lower in 1947 than in 1939-41 for almost all population groups. In general, greater gains were made by females than by males, and by younger than by older persons. The only increases in rates were for males in the age groups over 55 years and for nonwhite females 65-74 years of age. Tuberculosis death rates in 1947 by State of residence ranged from 11.8 for Iowa to 100.0 for Arizona.

Tuberculosis Mortality in the United States, 1947, Sara A. Lewis, Public Health Reports, April 1, 1949.

TUBERCULOSIS MORTALITY IN OLDER AGE GROUPS

Mortality statistics compiled for 1947 show that tuberculosis death rates have again declined in the United States. In 1947 the rate was 33.5 per 100,000, as compared to 36.4 in 1946. These gratifying figures show progress is still being made toward the goal—the disappearance of tuberculosis from the United States.

An analysis of the 1947 mortality data brings out a fact which is very significant. The proportion of deaths from tuberculosis among people over 45 years of age is steadily increasing.

For many years tuberculosis was a disease primarily of young adults between the ages of 15 and 44—people in the prime of life, wage earners, parents of small children, young people just starting their life work. In 1900, for example, almost two out of three of all the reported tuberculosis deaths were in this age group. Only one out of four of those who died was 45 or over. By 1940, over half of the tuberculosis deaths reported still took place among people between the ages of 15 and 44, but deaths of those 45 and older had risen to 42 per cent of the total.

An important factor in this shift has been the

fact that mortality rates have declined more slowly in the older age groups than in the younger and the greater number of older people in the country's population further accentuates the degree of change.

The shift toward older ages at death has great significance for tuberculosis case-finding activities. A study of a recent mass X-ray survey made in a Georgia county contains one of the few available tabulations of the ages of those X-rayed. It was disappointing to see the small percentage of older people who took part in that survey. Although 62 per cent of the population of the county in the age group 45-54 were X-rayed, the percentage fell rapidly in older age groups; only 17 per cent of those 75 and over participated.

Obviously there are many reasons why people do not take part in mass surveys. Many of the very old people could not participate because of illness or incapacity. Many others not so old, however, failed to be examined because they think tuberculosis is a disease they have "outgrown". They must be cautioned that those over 45 are subject to tuberculosis just as younger people are.

Control workers should be reminded that older people form a major source of infection in the population. Special efforts are needed to discover the disease among those over 45 for the protection both of individuals and of the community. All men and women, young and old, should be urged to have periodic X-ray examinations either in mass surveys or as part of their annual physical examination by private physicians. Only by special emphasis and special efforts can all cases of tuberculosis be discovered, isolated, and brought under treatment.

Tuberculosis Mortality in Older Age Groups, Robert J. Anderson, M.D., Public Health Reports, April 1, 1949.

SUPPLIED BY

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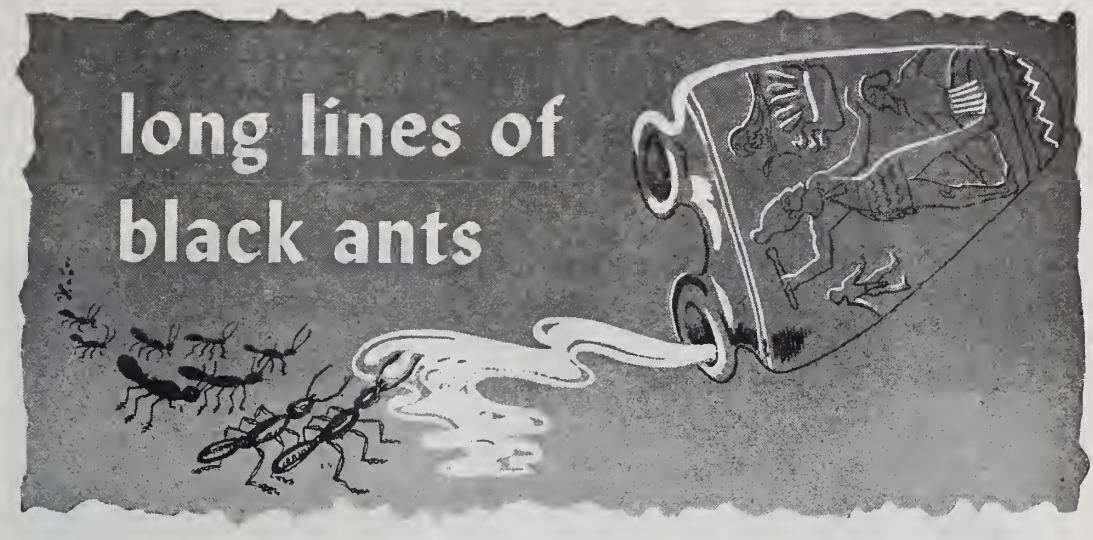
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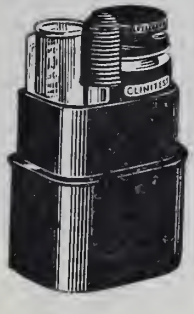
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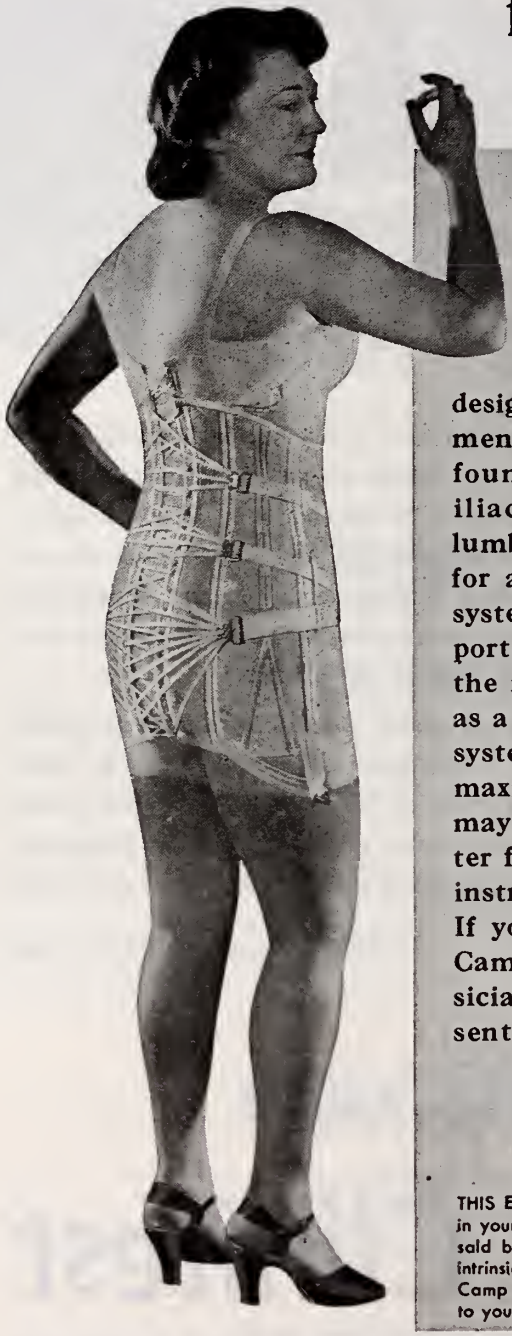
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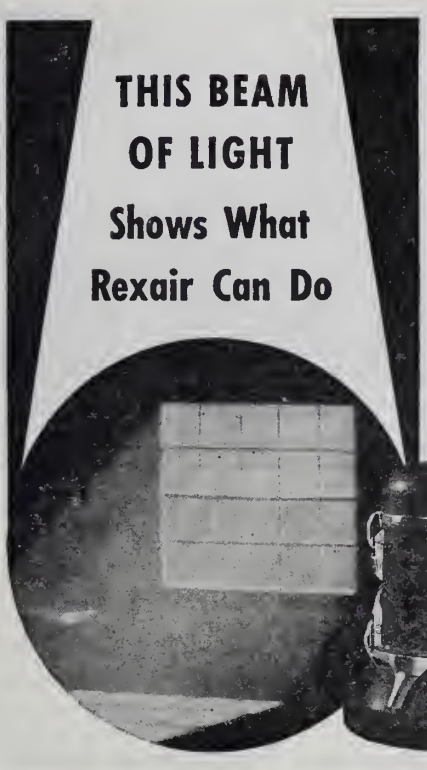
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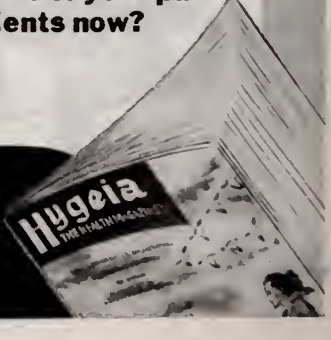
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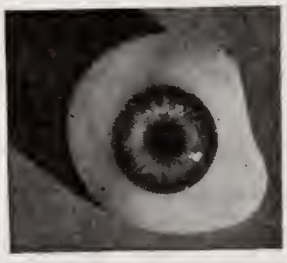
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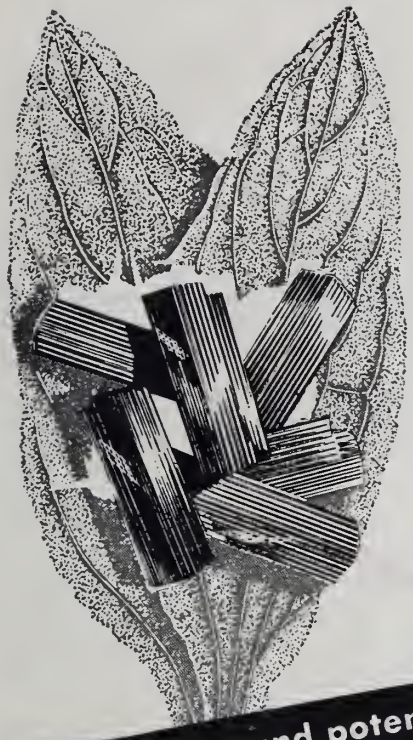
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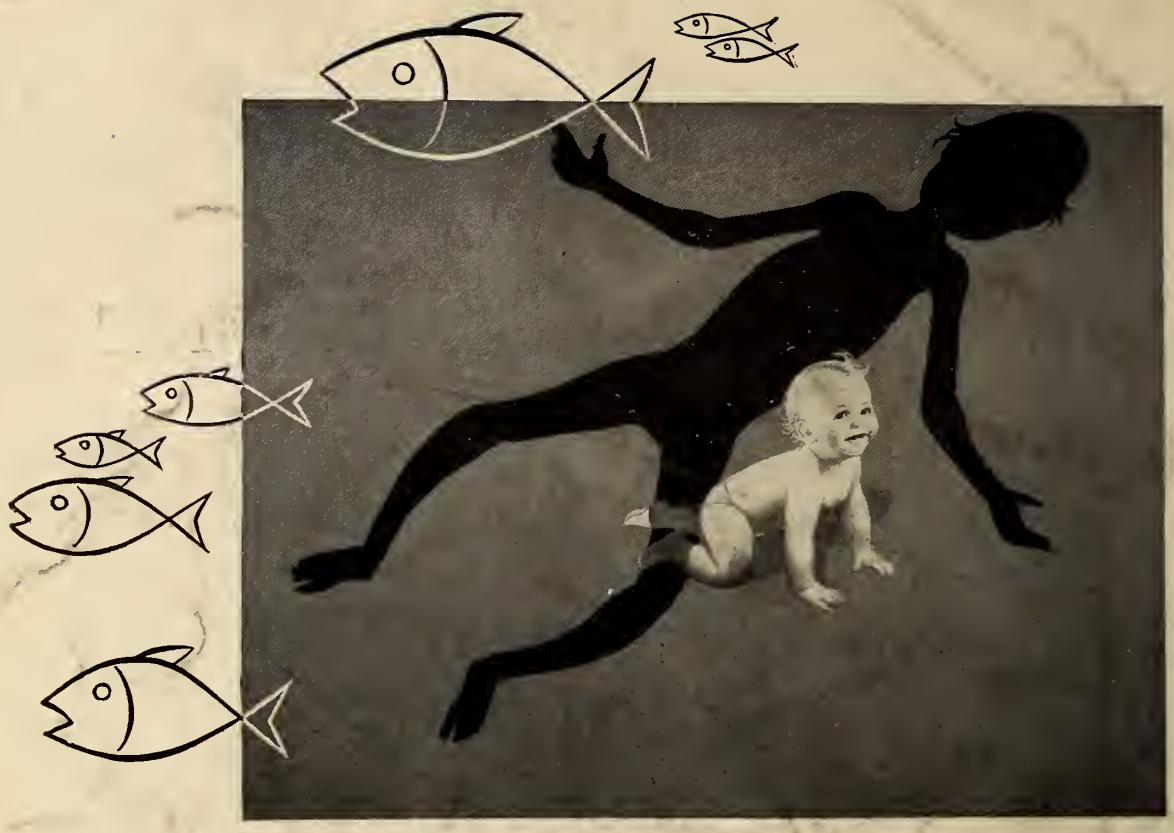
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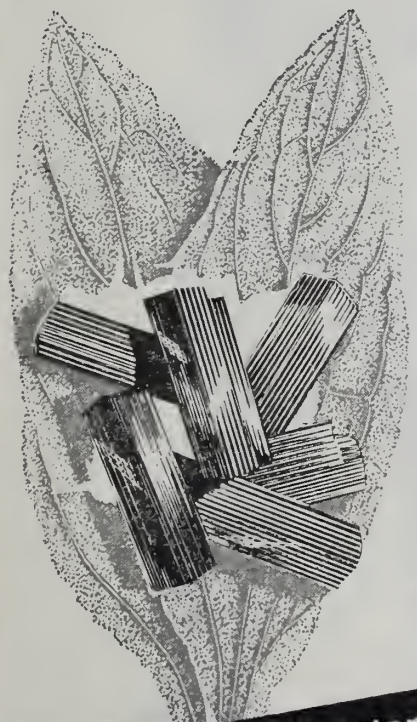
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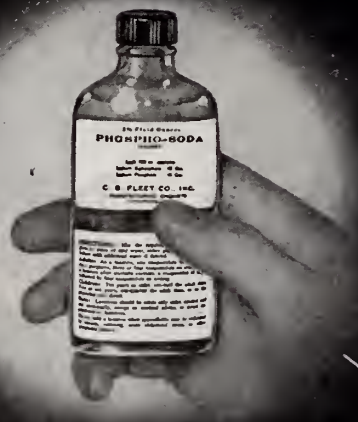
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*McLester, J. S.: Protein Comes Into Its Own, J.A.M.A. *139*:897 (Apr. 2,) 1949

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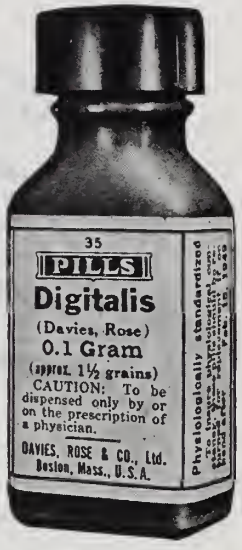
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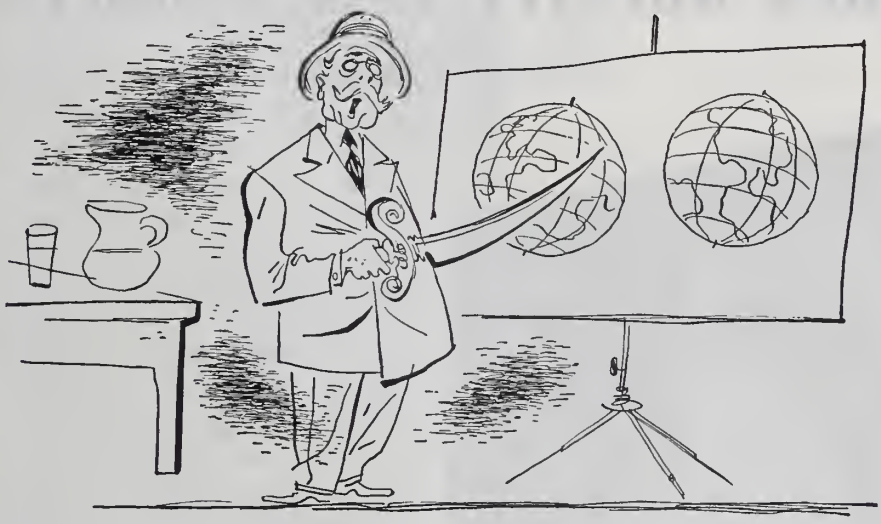
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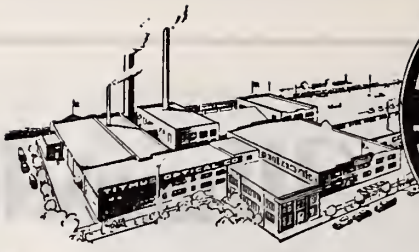
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1. Rawls, W. B.: New York Med. (no. 15) 3:19, 1947.

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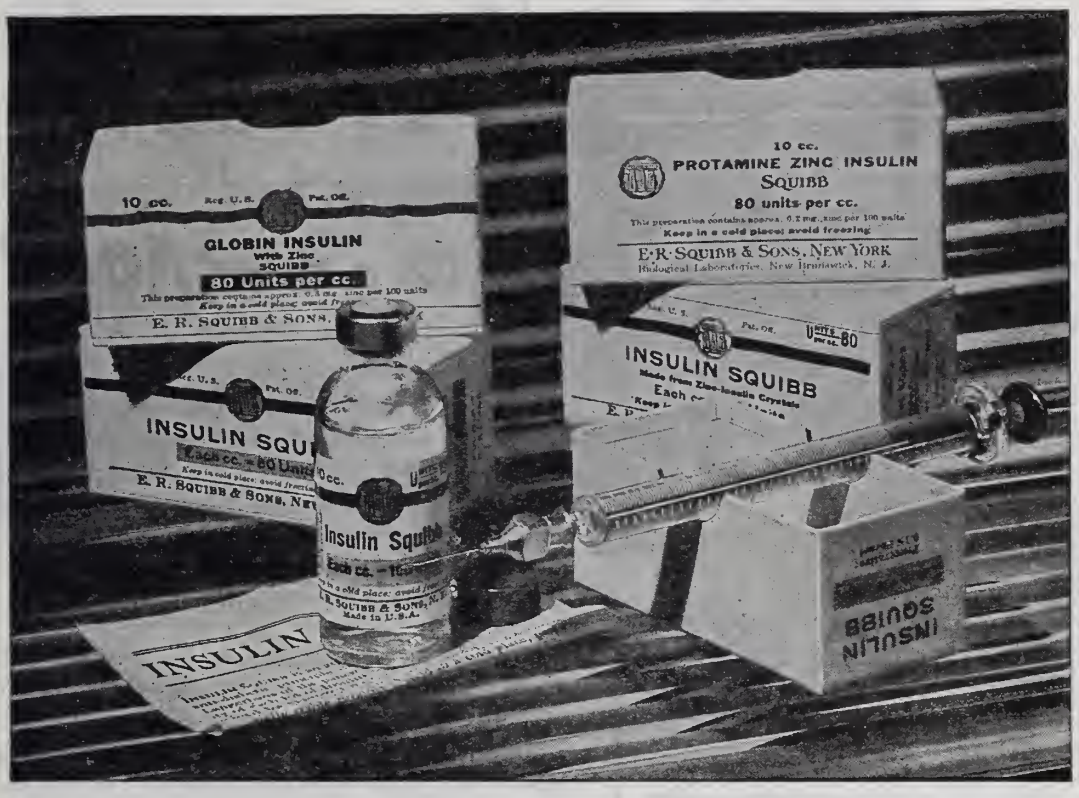
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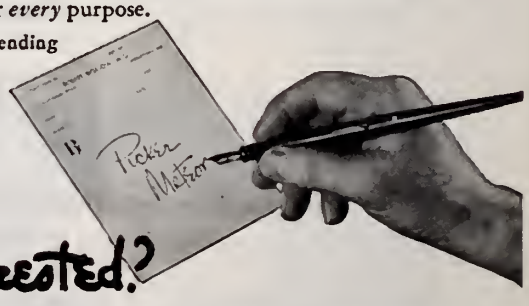
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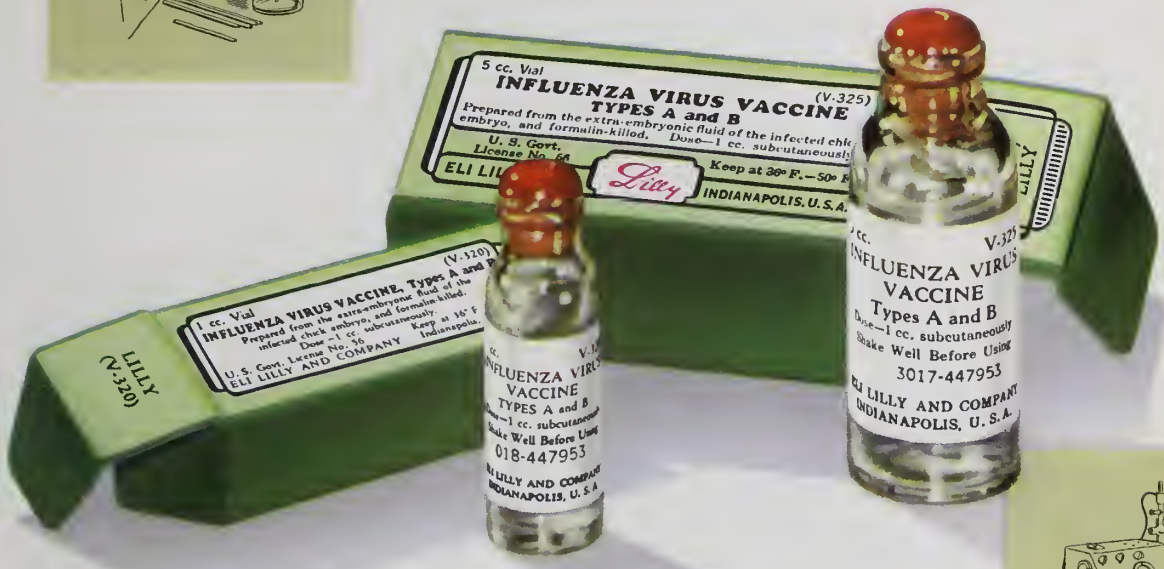
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PRESIDENT'S MESSAGE

No man can serve in a responsible office in his medical society—be it local, state or national — without feeling an acute and pervasive sense of responsibility for the welfare of his colleagues and for the destiny of his profession. Whether an elected officer considers it a privilege to occupy the office he holds, whether he thinks it an honor well merited and rightly bestowed, is of small consequence. The conviction, essential above all — without which no man is worthy of any responsible office—is a sense of stewardship — a recognition that he is dealing with the affairs of others who have put their trust in him and whose confidence he cannot neglect or betray.

If this applies to the president of your society—and he is profoundly aware that it does—it applies in only slightly less degree to every other member of the official family of our medical society whether he holds his office by virtue of election or has accepted an appointive assignment.

We regret to report that there are members of the Society whose potentialities for service to their colleagues in official capacity have been recognized by appointment to one or another of our committees but who appear to have accepted these honors with something less than the serious spirit in which they were conferred.

Specifically, we refer to the discouraging attendance recorded at a number of important committee meetings that have been held during the early Fall.

Thus, in the instances of three important committees meeting in September, there was an attendance of two members for each committee. In each case, all but one of the five or six members of the respective committees had indi-

cated he would be present at the meeting which was announced well in advance of the convening date. In spite of the promised expectation of attendance, the majority of those so expressing themselves failed without explanation to appear, thus, leaving each committee without a quorum to conduct its business officially and properly.

The committee is a standard device for delegating responsibility in any representative democracy. This device is the very heart of our activity in formulating policy and in carrying forward our aims and purposes. It is a method of expediting the will of the governing body and the corpus of the Society as a whole, whether it be to explore new fields, to review accomplishments or to direct future progress.

Without proper committee functioning, no organization can function representatively or efficiently.

When your incumbent presiding officer appointed his various colleagues to serve on the committees of The Medical Society of New Jersey, he did not consider that he was conferring an empty honor. On the contrary, he was enlisting the interest, service and unselfish devotion of those he requested to serve with him in helping guide our affairs. He was sharing with others the privilege of serving our Society, our profession, and the democracy of which we are presumably a representative part.

We cannot accept our early fall experience as typical of the general attitude of medical society officers and committee members toward their responsibilities. We do expect confidently to be able to offer a more encouraging report of committee activities by the time this administration approaches its end.

James F. Norton, M.D.,
President.

PUBLIC EDUCATION AND THE NEW ETHICS

At its recent convention in New Jersey, the American Medical Association adopted a revision of the *Principles of Medical Ethics.* While there are few radical changes in the content of the code, one new paragraph stands out. It is section 5 of Chapter I, headed "Educational Information not Advertising." Here for the first time in its history, the American Medical Association announces unequivocally in its code of ethics that a physician may take the general lecture platform or write for the laity, without thereby being automatically branded as a headline hunter. In the past, physicians have too often left the field to speakers and writers who were not hampered by any ethical scruples about publicity. Vendors of nostrums, whether of the medicinal, mechanical or economic variety had undisputed possession of the public platform, and achieved some kind of triumph by default. Only last year did organized medicine go into high gear in an affirmative campaign of public education in medical economics. While cooperation from doctors has generally been good, there was still a small fringe of well-meaning members who felt somehow that it was undignified of us to tell our story to the public and to offer our wares in the noisy market-place of ideas. This group of aloof dignitaries could always point to the *Principles of Medical Ethics* as evidence of their propriety in refusing to engage in public debate. Where, they would ask, is there any ethical warrant for us to go before the public as doctors, to be introduced by title, to have chairmen read our hospital affiliations? Where is there anything which says that this won't be construed as advertising and therefore offensive to our code? The answer now is clear enough: section 5 of chapter I of the revised *Principles of Medical Ethics.*

ORIGINAL ARTICLES

DERANGEMENTS OF THE HIP IN INFANCY AND CHILDHOOD*

HAROLD T. HANSEN, M.D., South Orange, N. J.

In *congenital dislocation of the hip,* the normal relationship of the capital epiphysis to the acetablum is disturbed. It may be unilateral or bilateral, and occurs five times as often in females as in males. The cause is unknown. Birth trauma is not a factor. The condition exhibits definite familial tendency.

In the infant, the diagnostic findings include the following:

Assymetrical skin folds on inner surfaces of the thigh. External rotation and a moderate degree of limitation of passive abduction. Actual shortening may be so slight that measurement means little. However, if the knees and thighs are fully flexed so that the feet rest on a firm table top an inequality in length of the legs becomes apparent. There will be a definite difference in the level of the knees. On palpation of the hip joint areas, the trochanter on the affected side will feel more prominent laterally, and will lie higher than the normal side.

After walking age, the most characteristic sign of dislocation of the hip is the limp which is a lateral lurch toward the affected side when bearing weight on that side. In bilateral cases this presents itself as a characteristic "waddle". Because the hip is not stable and the trochanter rides higher than normal, the gluteus medius is unable to maintain the body erect when the entire weight is thrown on the affected side. The Trendelenberg sign depends on this same element of the deformity.

The trochanter appears abnormally prominent laterally. The perineum is wider than normal and evident lordosis exists. This is most pronounced in bilateral cases. The buttocks look flat and the leg is usually externally rotated. In unilateral cases there is measurable shortening. Telescoping can be demonstrated.

In infants under one year of age, reduction may be accomplished in a high proportion of cases by one of several methods all having in common the principle of gradual fixed abduction of the legs over a period of months.

Manipulative methods include open reduction, palliative operative procedures, such as the various shelf operations, arthroplasties like the Colonna procedure, subtrochanteric osteotomy and finally arthrodesis of the hip joint.

Primary genetic dysplasia of the hip describes an entity allied with congenital dislocation of the hip. By this term, Hart designates those cases which are not true dislocations but in which there are discrepancies in the angle of slope of the acetabulum and in which there are discrepancies in the relationship of the acetabulum to the head of the femur. He has shown that many arthritic hips in young adults and the older age group demonstrate those discrepancies.

LEGG-PERTHES DISEASE

Osteochondritis or epiphysitis signifies a derangement of the normal process of bone growth which may occur at various centers of ossification during the most active period in their growth. The cause is uncertain, but many cases do present a history of trauma. As a result of trauma, there is interference with the vascular supply of the epiphysis. An aseptic necrosis develops. Some have suggested that there then follows (in adjacent areas) a hyperemia which might explain the formation of cartilage in the epiphysis, broadening of the neck, etc. The greater incidence of this condition in boys lends support to a traumatic factor.

Abnormal epiphyses are common in cretinism. Cavanaugh and others reported five cases of Perthes disease in which they found definite evidence of thyroid deficiency. Gill, however, has shown that thyroid deficiency is not an adequate total explanation.

Some cases have followed a general septicemia, and early cases may show some slight rise in temperature and occasionally, a slight increase in sedimentation rate. Gill has emphasized repeatedly a fullness about the hip when seen early. At operation an active syno-

* Read at the Annual Meeting of The Medical Society of New Jersey, April 28, 1949.

vitis has been demonstrated and in some cases tissue sections have shown evidence of a chronic inflammatory process, non-specific.

The most constant early sign is a limp. This may or may not be accompanied by pain. Muscle spasm is usually quite marked. Later, the limp may, more or less, disappear but there is usually a "hitch" to the hip until the whole process has completed its course. The leg may be held in slight flexion and adduction and may present practically no motion due to severe spasm, but the immobility allows the child to get about with no pain.

One can usually demonstrate some restriction in abduction, internal rotation, flexion and hyperextension. Early restrictions are due to muscle spasm, later to actual contractures. Still later, mechanical blocks may prevent full motion due to changes in the shape of the head and neck. Some muscle atrophy invariably develops. In most instances one gets the impression that it is due to lack of use of the extremities rather than the atrophy one sees in septic joints. In the recovery stage one may find a hip with complete recovery of function to varying degrees of restricted motion.

One may be hard pressed in an early case to differentiate between Perthes disease and tuberculosis of the hip. In Perthes, pain is not usually too pronounced. The patient is commonly a healthy, robust individual. There is less likely to be a flexion contracture. In tuberculosis, the patient is usually an ill child and motion is generally restricted in all directions. Tuberculin tests may be of significance.

Perthes disease is a self limiting disease. The general health is not affected. The degree of hip disability is directly related to the amount of deformity and disproportion between the head and acetabulum. Undoubtedly some of the severe arthritides of hips we see in adults had their start in cases of Perthes disease in childhood.

In early cases, with muscle spasm and minimal x-ray findings, bed rest, with *no* weight bearing on the affected side is the treatment of choice. In the face of severe muscle spasm or pain, a few pounds of traction will be helpful in relieving spasm and also in avoiding some of the flattening of the head due to the excessive contraction of the hip muscles. In uncooperative or extreme case, the orthopedist may resort to a hip spica for a brief time.

Methods of avoiding weight bearing and still allowing the patient to be ambulatory, are in use, such as the ischial rest caliper brace and various slings and braces which keep the leg flexed to prevent weight bearing. However, these children can sometimes bear weight on the flexed knee, thus defeating the purpose of these appliances.

SLIPPED UPPER FEMORAL EPIPHYSIS

This is a condition, more common in males, which occurs chiefly between the ages of ten to seventeen. It is frequently observed in children with Froehlich's syndrome. In my experience, the tall lanky individual who is undergoing rapid growth is almost as frequent a victim. Probably in a rapidly growing femur, the bone adjacent to the epiphyseal line is immature. Add to this the daily stresses and strains of an active boy who may be overweight and it is not too difficult to visualize a "slipping process". Sometimes a history of trauma is elicited, but most of my own cases had gradual onsets. In the early stage the boy may complain of pain, frequently not at the hip but just above the knee. This point in itself has caused a delayed diagnosis under the mistaken idea that the child had knee pathology. He may be brought in because of a tendency to stand or walk with the foot externally rotated. Later there may be a pronounced limp due to protective spasm, shortening and gluteal limp.

Examination will typically show the leg to be externally rotated and perhaps adducted. The hip will demonstrate muscle spasm and restricted motion, especially internal rotation. There may be a measurable shortening and a demonstrable hip flexion contracture.

Diagnosis can be suspected on the history alone and almost surely after examination; but is very definite on x-ray examination. In an early stage, the x-ray film shows that the capital epiphysis has not become displaced but it appears imminent. Some "wooliness" along the neck adjacent to the epiphyseal line appears. A lateral view may show a

slight displacement or offset. The head may show a mild decalcification. In the early stage the head of the femur is seen in the acetabulum but is rotated so that the lower posterior borders are displaced downwards and laterally. The neck is rotated externally and rides superiorly. In the more gradual and progressive type the superior border of the neck appears arched. In the lateral view the displacement is obvious. New bone may form in the angle between the lower borders of the neck and the underhanging head. A ridge of new bone may appear at the superior aspect also. In the advanced type, the femoral head is atrophic and displacement may be almost complete. The deformity of the neck may be severe with marked varus. Prognosis depends almost entirely—and inversely—on the amount of surgery required to restore relationship to anything approaching normal.

Cases seen in the "preslip" stage are treated by internal fixation. Cases which have slipped less than a centimeter can usually be accepted and internally fixed in that position. Drilling and inserting bone splints across the epiphyseal line is frequently used. Cases with more displacement but a short history can be reduced by some form of traction. When reduced, internal fixation can be used. Cases of long standing with marked deformity must be corrected by some form of osteotomy. Wagoner advocates a cuneiform osteotomy and internal fixation. Others prefer the subtrochanteric procedures.

Arthroplasties in long standing, severe cases with coxa mallum or arthritic processes are advisable.

CONGENITAL COXA VARA

Coxa vara is a decrease in the angle of the femoral neck with the shaft. Acquired coxa vara deformities occur from a multitude of causes. Congenital coxa vara is not common and (in spite of multiple theories) the cause is not known.

No hereditary factor has been shown. Rickets has been blamed but is rarely found in individual cases. Trauma is unlikely. Nilsonne suggested some embryonic vascular disturbance. Subsequent reports would support such a theory, since pathologic sections through the neck present almost exactly the same picture as that seen in Perthes disease.

These children are not usualy discovered until walking age when they present a painless limp. The gait is similar to that of congenital dislocation of the hip.

Treatment requires subtrochanteric osteotomy with some form of internal fixation to maintain more or less valgus position of the neck to the shaft.

Untreated, the prognosis is very poor. With osteotomy results are better.

153 Irvington Avenue

SYMPOSIUM ON INHALATION THERAPY

A unique demonstration of inhalation therapy equipment, together with a series of lectures on the subject, is available to New Jersey doctors who will come to the New York Academy of Medicine (2 East 103 Street) any time between December 5 and December 9, inclusive. Daily at 4:30 p. m. there will be moving pictures of the use of this equipment. These will be repeated at 7:15 p. m. Lectures will be held every evening at 8:30 p. m. The lecture program follows:

Monday, December 5—Treatment of Anoxia —Dr. Barach, Dr. Cecil, Professor Moon.

Tuesday, December 6—Pediatric Aspects of Inhalation Therapy—Drs. Craig, Taran, Apgar, Smith and Fischer.

Wednesday, December 7—Asthma—Dr. M. S. Segal; Use of Respirators— Dr. P. M. Stimson; and Use of Oxygen in Coma— Dr. H. L. Motley.

Thursday, December 8—Treatment of Heart Disease—Drs. Maynard, Richards, Master and R. Levy.

Friday, December 9—Inhalation Therapy in Pulmonary Disease—Drs. M. Block, Norman Plummer, H. A. Bickerman and C. Eastlake.

For further details, write to the Executive Secretary at the New York Academy of Medicine.

PRE-OPERATIVE AND POSTOPERATIVE MANAGEMENT OF DIABETICS *

GEORGE GINSBERG, M.D., Hoboken, N. J.

The discovery of insulin was the most important single factor permitting successful operations on diabetic patients. With insulin controlling the blood sugar and preventing acidosis, the diabetic surgical patient became as good an operative risk as his non-diabetic brother. Sulfanilamide, penicillin, streptomycin, and aureomycin have helped the surgical diabetic who has an infection. The frequency of surgery among diabetic patients is increasing. Today, elective and plastic as well as emergency operations may be performed on diabetics. And diabetic patients have a longer life expectancy, and therefore are as prone as any other group of the same age to require surgery for gall bladder disease or lesions of the gastro-intestinal tract.

The prognosis for the surgical diabetic has improved steadily. At the Joslin Clinic [1] mortality for surgical diabetics between 1923 and 1926 (insulin was discovered in 1922) was 11.5 per cent. In 1946 the mortality rate at the same clinic had dropped to 2.2 per cent. The wider use of insulin, sulfa drugs and penicillin account for some of this improvement. But another influence is the fact that in all up-to-date hospitals the surgeon and the diabetic specialist form a team and work together on behalf of the patient. The surgical diabetic requires more attention than the medical diabetic because his condition is more critical. The aim is to have the patient under good diabetic control. Under such control, he is as good an operative risk as a non-diabetic of the same age, and having about the same quality of cardiovascular and renal organs.

In the pre-insulin days, diabetic patients were fed large amounts of fat and protein in an attempt to control glycosuria. This generally brought on acidosis which often progressed to coma. We now prevent acidosis by giving adequate carbohydrate and as much insulin as required. Coma is rare in properly treated surgical patients. The danger of a clean wound in a diabetic becoming infected is slight, if the diabetes is well controlled.

Another important factor is *good nutrition.* The most important dietary constituent is protein. Protein deficiency is common in the diabetic whose diet has not been properly balanced. Protein provides the amino acids necessary for the repair of tissue, as well as for the formation of hormones, antibodies and enzymes. We learned in World War II that wounded soldiers given ample protein in their diet showed quicker healing of wounds and fewer postoperative complications than those on ordinary diets. The diabetic patient needs a protein reserve to maintain nitrogen equilibrium. For that reason we are now giving diabetic patients 80 to 100 grams of protein per day, as compared to the average of 60 grams a day given previously. Present average carbohydrate ration to diabetic patients is 150 to 200 grams in 24 hours. If the patient receives this amount of carbohydrate regularly before operation (with sufficient insulin to take care of it) there will be slight danger of acidosis. He will have enough glycogen reserve in his liver to prevent this complication.

Salt and Water Balance are important. Diabetics with acidosis show polyuria and dehydration with disturbance in the salt metabolism. Before surgery, the plasma chlorides should be checked and salt and fluids given where necessary. Patients under good diabetic control generally do not require extra salt. They should have plenty of fluids, however. When vomiting has occurred both salt and fluids are necessary.

Vitamins are important. Many diabetic patients have a mild or moderate vitamin deficiency, especially if diets have not been properly balanced or contain insufficient protein. These patients should be given ascorbic acid and Vitamin B Complex either by mouth or parenterally.

* Read by invitation at the 183d Annual Meeting of The Medical Society of New Jersey, April 28, 1949.

1. Joslin, E. P.: *Treatment of Diabetes Mellitus,* 8th Edition (1946), Lea and Febiger, Philadelphia.

DIET AND INSULIN BEFORE OPERATION

If there is no urgency, the patient should be admitted to the hospital four to seven days before surgery in order to regulate the diet and insulin dosage. We give 80 to 100 grams of protein and 150 to 200 grams of carbohydrate in twenty-four hours. The balance of the calories is made up of fat to a total of about 2000 calories for a patient of average weight. During the pre-operative period, the foods should be simple and not too bulky with roughage. Soups and broths are useful as they increase the salt supply in the blood. In elderly patients it is not desirable to keep the blood sugar at a normal level. A blood sugar of 150 to 160 milligrams is safer, and a trace of glucose in the urine is permissible. On the night before the operation a sedative of phenobarbital (1½ grains), or nembutal (1½ grains), may be given. On the morning of the operation a small dose of morphine (gr. 1/6) may be used, pre-operatively. Later demerol may be used for pain in doses of 100 milligrams as necessary.

On the morning of the operation, the patient may be given eight ounces of orange juice or ginger ale about four hours before the operation. Occasionally this is retained in the stomach and may cause vomiting during the operation. On the day of the operation if the patient is taking protamine zinc insulin, one half of the regular dose is given at the usual time that morning. The urine is examined every four to six hours for sugar and acetone, and additional doses of regular or crystalline insulin are given, depending on the amount of sugar present in the urine at the time. We place an order on the chart as follows—Do Benedict's Test on urine and give regular insulin as per schedule:

Red or yellow reaction	15 units
Mustard reaction	10 units
Cloudy green reaction	5 units
Blue reaction (negative)	0 units

Directly after the operation, the patient is given a litre of normal saline, or saline in 5 per cent glucose, intravenously, at a slow rate. If glucose has been used, an additional 15 to 25 units of regular insulin may be injected directly into the solution. If the patient is able to take fluids by mouth within six to eight hours after the operation, no further injected fluids will be necessary. However, if the operation has been a serious one, and the patient cannot hold fluids by mouth, an additional quart of fluid may be injected every eight hours. As soon as the patient is able to hold a reasonable amount of fluid by mouth, the injections are discontinued. Fluids are then given in small amounts every few hours; at first, water or weak tea; then ginger ale, orange juice, and skimmed milk. The next day cereals, custards, gelatin, tomato juice and stewed fruit may be added. Unless the operation has been performed on the gastro-intestinal tract, the patient will be able to resume his normal diet three to four days after the operation. One half the usual dose of protamine zinc insulin is administered the day of operation and the day following, plus additional regular insulin as determined by fractional urine tests. On the third postoperative day, three quarters of the usual dose of protamine zinc insulin is given plus additional regular insulin as required. On the fourth postoperative day the regular diet and full protamine zinc insulin dose is resumed. Additional regular insulin may be added if the blood sugar and urine sugar examinations show the necessity for it.

In Emergency Operations the situation is different, especially if the patient is not under satisfactory diabetic control. Blood sugar and carbon dioxide estimations are done at once and the urine is examined frequently for sugar and acetone. The quick acting insulins are given subcutaneously or intravenously every hour or two if necessary, guided by the blood and urine reports. Electrolyte and fluid balance is established as soon as possible by the intravenous infusion of saline. Glucose administration is not absolutely necessary unless prolonged undernutrition or acidosis is present. With undernutrition the glycogen stores in the liver are depleted, and here the use of glucose is necessary. Sudden restriction of carbohydrates in these cases is dangerous, as it may bring on acidosis with concomitant vomiting. Surgery is performed when the acetone has disappeared, when the sugar is under control,

and the patient has had sufficient fluids. However, excessive amounts of intravenous saline must be avoided, particularly in elderly patients with myocardial damage. In this type of patient it is safer to use hypodermoclysis.

ANESTHESIA IN DIABETIC SURGERY

An experienced anesthetist should be part of the team in diabetic surgery.

Local Anesthesia is generally contra-indicated in diabetics, as the injection may cause tension in the tissues, and a certain amount of local trauma. Many local anesthetics contain adrenalin, which should not be used because it raises the blood sugar and impairs the circulation by its vasoconstrictive action. The local use of ethyl chloride is dangerous as its freezing action may cause vasoconstriction and local gangrene.

Chloroform is absolutely contra-indicated because of its tendency to cause liver damage.

Ether is not particularly safe because during ether anesthesia the formation of glycogen ceases; there is an increase in blood fat, with a tendency to acidosis. Ether is not a good anesthetic for diabetic patients.

Cyclopropane is probably the anesthetic of choice in general operations on diabetics. It has the advantage of quick recovery from unconsciousness after the termination of the anesthesia; and there is no tendency to acidosis.

Spinal Anesthesia is the choice for operations on the extremities. It is also good for abdominal operations. With spinal anesthesia, the patient is able to take fluids by mouth three to four hours after operation.

Intravenous Anesthesia. Sodium pentothal may be used intravenously for operations of short duration.

We recently used this agent successfully in a very serious case. The patient was a woman of fifty-eight, a diabetic for twenty years with arteriosclerosis and hypertension. She was admitted for spreading infection to the toes and foot, and scheduled for operation. In the meantime she began to have sudden severe pains in the chest referred down both arms. The operation was postponed. An electrocardiogram showed the pattern of recent coronary occlusion. However, temperature began to rise, and the foot deteriorated rapidly. Five days after the coronary attack she was operated on, using sodium pentothal intravenously in small dose, and oxygen by inhalation. A transmetatarsal amputation was performed, and the patient made an excellent recovery.

Refrigeration Anesthesia has been highly recommended by Allen and Crossman [2] and by Gerald Pratt.[3] However, I have had no experience with it. It should be useful in aged and debilitated patients requiring amputation, who could not tolerate the other types of anesthesia.

CARBUNCLES IN DIABETICS

Penicillin has changed the method of treating carbuncles in diabetics. In about 40 per cent, intensive treatment with fast acting penicillins hypodermically will make surgery unnecessary. In most cases, penicillin plus surgical drainage is still necessary. The newer treatment of direct injection of penicillin into the carbuncle is bringing good results. One hundred thousand units of penicillin is dissolved in 3 cubic centimeters of distilled water. This is injected into various areas of the carbuncle with a 23 or 24 gauge needle, care being used not to cause too much tension, and to distribute the medication as evenly as possible. Then a dry sterile dressing is applied. This is repeated on three successive days. Many carbuncles heal in about ten days with this treatment. Others require incision and drainage as well.

GANGRENE AND DIABETIC SURGERY

Gangrene is common in diabetics. It was present in 3.8 per cent of all diabetic patients admitted to the New England Deaconess Hospital from 1939 to 1946. At the Mayo Clinic it was found in 3.1 per cent of all diabetic admissions. In other hospitals in the United States and Canada the incidence of gangrene varied from 3.5 to 7 per cent of all diabetic admissions to the hospital.

Gangrene is most common in patients over 60 years of age. The underlying cause is poor circulation due to advanced arteriosclerosis of the blood vessels of the extremities, plus the dehydration of the tissues in poorly controlled diabetic patients. The precipitating cause is generally some slight infection of the toes due

2. Crossman, L. W., and Allen, F. M.: Journal of the American Medical Association, 133:6 (February 8, 1947).
3. Pratt, G. H.: Bulletin of the N. Y. Academy of Medicine, 24:111 (February 1948).

to mild trauma, like wearing ill fitting shoes with resulting corns and calluses. Fungus infections between the toes add to the trouble.

Every case should be studied thoroughly. X-rays should be taken to determine the amount of calcification of the arteries and the presence or absence of bone disease. The oscillometer may be used for examinations at various levels. The plethysmograph for estimation of the blood volume of an extremity may also be helpful. The most important information is obtained by comparing the temperature of the involved limb with that of the other limb at various levels; and also by comparing the color of the limb. If the limb is warm to the touch, surgery will probably be successful at that level; if cold, probably not, and surgery will have to be performed at a higher level.

Prevention of gangrene requires clean feet, well fitting shoes and soaking the feet in warm water every night. With dry gangrene (which does not spread very rapidly and tends to demarcate from normal tissue) the treatment should be conservative such as mild soaks, penicillin and sulfa drugs, Buerger's exercises and the Sanders oscillating bed. Pratt[3] advises the elimination of smoking in all patients with vascular disease of the extremities. Lundberg and Lundberg (quoted by Pratt[3]) have shown that blood sugar will rise as much as 50 per cent after smoking two cigarets, probably on an adrenalin stimulating basis. For the same reason, pancreatic tissue extracts (like depropanex) are useful as they neutralize the adrenalin effect and reduce the spasm in the blood vessels. A good antiseptic soak for the feet is a solution of 1 to 10,000 to 1 to 15,000 of potassium permanganate. This is also useful in controlling fungus infections. Wherever increased tension is present in the tissues due to infection or inflammation, the situation must be relieved or the resulting reduction in the circulation will lead to gangrene.

Methods of treatment include various forms of amputation.

Transmetatarsal amputation was first performed by McKittrick[4] in 1944, when penicillin became available. It is indicated where there is gangrene of one or more toes and when the circulation is such that there would be no healing if only the toes were removed, the amputation is performed just proximal to the heads of the metatarsal bones. Of the first seventy-five operations by McKittrick, sixty-four were successful and eleven required further surgery. Penicillin was important in the successful healing in these cases. This operation gives the patient a functioning foot and saves him from a major amputation. Patients walk well with ordinary shoes by stuffing the anterior part of the shoe with cotton wool.

With moist or spreading gangrene, and with severe pain in the extremity, surgery must be done quickly before the infection spreads and septicemia develops. Penicillin and sulfa drugs should be used freely when indicated. The present tendency is to amputate below the knee. Silbert[5] has done 127 amputations below the knee with success in 90 per cent of his cases.

He gives three reasons for preferring the low amputation: (1) there is a lower mortality among these patients. (2) The operation saves the knee joint and enables the patient to steady himself. It is also easier to use an artificial leg with a functioning knee joint. (3) It leaves a stump that is practically painless. Silbert does operations below the knee regardless of whether the femoral and popliteal arteries are open or closed. Unless the closure has been very recent, he says that sufficient collateral circulation may be expected below the knee for satisfactory healing. Scott[6] says that "below the knee" amputations are feasible and safe if the femoral pulse is present and if the cellulitis does not extend above the lower one-third of the leg. If there is good collateral circulation the patient will get healing. Greene[7] showed that delayed healing of wounds in elderly diabetic patients was due more to poor blood supply than to the height of the blood sugar.

ABDOMINAL PAIN IN DIABETICS

Diabetic patients with acidosis often have nausea and vomiting or complain of abdominal pain suggesting appendicitis. These patients may have spasm of the abdominal muscles simulating rigidity. The leukocyte count does not help us, as it is elevated in both acidosis and acute abdominal inflammation. In diabetic acidosis there is generally vomiting before the onset of pain. In the acute "surgical abdomen" the patient usually has pain first and then vomiting; or both symptoms may come at the

4. McKittrick, L. S.: New England Journal of Medicine, 235:929 (December 1946).
5. Silbert, Samuel: Annals of Surgery, 127:503 (March 1948).
6. Scott, Walter: California & Western Medicine, 62:170 (April 1945).
7. Greene, J. A.: Medical Record and Annals, Baylor University, Texas, 38:865 (1944).

same time. An important diagnostic point is rectal examination [8] and palpation of the appendix in the right lower fossa. In acidosis there is no tenderness here. The patient should be treated vigorously for acidosis for four to six hours (with saline intravenously and fast acting insulin). If at the end of six hours there is no improvement, surgery is indicated.

In 1943 Ravdin [9] showed that adequate protein as well as carbohydrate was necessary to protect the liver in gall bladder surgery. The present method is to place the patient on a special diet of about 75 per cent carbohydrate, 20 per cent protein, and 5 per cent fat, for at least five days before the operation. In this way, the glycogen content of the liver is built up and the fatty acids decreased. Glucose alone is not sufficient to protect the liver. An adequate amount of protein is necessary.

HYPERTHYROIDISM AND DIABETES

Hyperthyroidism aggravates diabetes. It causes an "adrenalin-like" action which interferes with the storage of glycogen or decreases the rate of release of glycogen from the liver. And there is an antagonism to the action of insulin. The diabetic patient with hyperthyroidism is generally much below normal in weight, due to the increased rate of metabolism and the great loss of sugar in the urine. The increased metabolism causes the patient to overeat, and aggravates his condition, often leading him into coma.

Previous to the discovery of thiouracil it was customary to operate on these patients in two or even three stages. With thiouracil the one stage operation is safe. I use methyl or propyl thiouracil 200 milligrams each day, starting about three weeks before the operation. Lugol's solution is started about twelve days before the operation, 30 drops a day. The patient is kept on a diet of about 200 grams carbohydrate, 90 to 100 grams protein, and enough fat to make up his caloric requirement. The diabetic symptoms are controlled with insulin. When the basal metabolism approaches normal the patient is ready for surgery. On the day of operation no orange juice is given previous to the operation as this is too often retained in the stomach for many hours and causes vomiting during the operation. The anesthetic of choice is cyclopropane intratracheally. Following the operation, the urine is examined every four hours and regular insulin given as necessary. Glucose and saline are given intravenously until fluids can be taken by mouth. Lugol's solution, one teaspoonful, may be added to the intravenous solution for a few days after operation. Lugol's solution is continued by mouth for about two weeks after the operation.

RENAL CARBUNCLE

Renal carbuncle or septic infarct should be watched for in diabetic patients, as they are prone to infections and carbuncles. Septic infarcts of the kidney are preceded by skin infections like carbuncles, furuncles, and paronychia. The time between the skin infection and the renal symptoms is two to four weeks. Renal infarcts are true carbuncles. They point toward the renal capsule, through which they often break to form a perinephritic abscess. In the early stages, the infarct is a walled off infection, with no blood or pus in the urine. Symptoms of onset are a chill with high fever and leukocytosis with pains in the back at the costovertebral angle on the affected side, with tenderness or pressure. This is a serious surgical emergency. In early stages, active penicillin therapy may cause resolution of the infection. Advanced cases and patients unresponsive to penicillin will require surgical treatment.

FRACTURES AND DIABETES

Fractures occur in elderly diabetic patients from apparently insignificant trauma. Fractures of the hip require prolonged hospital care. If there is no bony union, the patient becomes a helpless invalid. If bony union does occur, the slow re-education and strengthening of the muscles require five to six months before the patient can walk. In these cases, sugar must be kept under control and the food must be ample and high in protein to aid tissue repair. Milk and cheese are important in providing the high calcium which these patients

8. McKim, L. H., and Fowler, A. F.: Surgical Clinics North America, 25:1027 (1945).

9. Ravdin, I. S., *et al.*: Journal of the American Medical Association, 121:322 (January 1943).

require to combat osteoporosis which is generally present. Vitamin D is also needed in bone repair.

BURNS AND DIABETES

Burns are serious in diabetic patients. Even in non-diabetics burns often cause hyperglycemia and lowering of the alkali reserve of the blood. Diabetic patients should be warned of the danger of prolonged exposure of large parts of the body surface to the summer sun. There are many cases of death following severe sunburn in non-diabetics as well as diabetics.

I had a case of that type about thirteen years ago, before the days of sulfa drugs or penicillin. The patient was a middle aged diabetic who had exposed herself to the sun in a bathing suit on a very hot, sunny day. She became extremely ill with nausea, vomiting, and high fever, was hospitalized at once and received plenty of insulin and fluids. The burns became badly infected. They were opened and drained surgically. However, she developed septicemia and died.

INFECTIONS IN DIABETIC PATIENTS

Diabetes is made temporarily more severe by any infection, even the common cold. Joslin[1] finds no definite proof that diabetes may be caused by infection, except infection of the pancreas itself. However, John[10] reports cases of infection prior to the onset of diabetes in some of his juvenile diabetics. We do not really know why the diabetic shows lowered resistance to infection. It occurs generally in patients under poor control, and is probably due to poor nutrition, lowered glycogen content of the liver, dehydration and acidosis.

Infection makes a diabetic worse and he then requires a larger insulin dose for control. During the acute stages of infections it is not necessary to keep the urine sugar free in all specimens. In fact, it is safer to permit traces of sugar in the urine, because improvement in the infection will cause a sudden lowering of the insulin requirement and precipitate a severe hypoglycemic reaction. It is safer to use the fast acting insulins every four hours guided by urine examinations before each injection.

The sulfa drugs and the antibiotics have benefited diabetics with infections, just as they have benefited all patients with infections. Controlling the infections, these drugs have made diabetes easier to treat by reducing the insulin requirement, shortening the period of acute illness, and preventing complications.

CONCLUSION

Successful surgery on diabetic patients depends on the close cooperation of the surgeon, the diabetic specialist, the anesthetist, and the laboratory. If the nutrition of the patient is good, and the diabetes is under control, the patient is fit to undergo the same amount of surgery as the non-diabetic patient. The discovery of insulin made operations on diabetics safe. The discovery of sulfa drugs and the antibiotics has greatly increased the margin of safety.

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DISCUSSION

W. H. STONER, M.D.: Fluid loss and dehydration are combated energetically in all surgical cases and particularly in the diabetic. Dr. Ginsberg has carefully outlined effective means for supplying fluids to the dehydrated surgical diabetic. Dehydrating surgical shock is accompanied by changes in the blood vessel walls including increased capillary permeability with loss of plasma protein. This capillary permeability must be reduced if the fluids and protein are to be retained in the circulation. Selye and others have shown various steroid hormones of the adrenal cortex to be of value in retaining circulatory fluids and protein. Desoxycorticosterone is the most effective of the known cortical steroids in maintaining water-electrolyte balance. Scudder and others maintained blood volume by employing cortical hormones pre- and postoperatively.

When fluids in large quantities are to be administered subcutaneously, their absorption may be markedly accelerated by addition of hyaluronidase, the enzyme prepared from bull testes. This spreading factor facilitates absorption of solutions given subcutaneously and makes the procedure less painful and less protracted.

The importance of avoiding dehydration in the surgical diabetic justifies careful consideration of the pre- and postoperative use of these two additional agents, cortical hormones and hyaluronidase.

10. John, H. J.: Annals of Internal Medicine, 8:198 (February 1934).

DEVELOPMENT OF THE CAMPAIGN AGAINST THE RHEUMATIC DISEASES *

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At this first meeting of the Section on Rheumatism of The Medical Society of New Jersey it is appropriate that some time be devoted to a review of what has been accomplished in the campaign against the serious group of diseases to which the section is dedicated.

Only in recent years has the magnitude of the problem of the rheumatic diseases been appreciated. Probably the best data available for this country are those provided in the Preliminary Report of the National Health Survey published by the U. S. Public Health Service in 1938.[1] These show that the rheumatic diseases were the most prevalent chronic illnesses in the United States in that year with an estimated incidence of 6,850,000 cases. This is almost twice the incidence for heart diseases, seven times that for cancer and ten times that for tuberculosis and for diabetes. The same report revealed that the rheumatic diseases caused 97,200,000 days lost from work —a figure greater than that for any other chronic diseases with the exception of nervous and mental disorders. Estimated cost of medical care alone for these patients is more than $100,000,000 each year; and to this must be added an incalculable amount resulting from losses in production. Thus the rheumatic diseases are important not only because of their toll of pain and disrupted lives but also because of the vast economic loss they impose on the nation.

ORGANIZATIONAL ASPECTS OF THE CAMPAIGN AGAINST THE RHEUMATIC DISEASES

Perhaps the first effort to conduct an organized study of the rheumatic diseases was that developed by Strangeways through the Cambridge Committee for the Study of Special Diseases. World War I put an end to this attempt almost before it could begin. At about the same time, at an International Congress on Physical Treatment held in Berlin in 1913, Dr. J. van Breemen had suggested an organization to study rheumatism on an international basis. This attempt also failed because of the war; but it was resumed by the indomitable Dr. van Breemen as soon as hostilities were ended. On April 20, 1925, an International Committee on Rheumatism was formally launched in Paris under the sponsorship of the International Society of Medical Hydrology, with Dr. R. Fortescue Fox of London as chairman and Dr. van Breemen of Amsterdam as secretary. This Committee, in 1928, gave place to the *Ligue Internationale Contre le Rheumatisme* which has continued to the present under the guidance of Dr. van Breemen and with headquarters in Amsterdam. One of its important functions has been to spread information about the rheumatic diseases throughout the world. It has sponsored many conferences and international congresses, and published *Acta Rheumatologica* from 1928 until 1939 when World War II forced interruption of that journal.

Another principal purpose of the International Committee and of the League was to encourage the formation of national committees in various countries. This effort has proved so successful that there are now committees in 29 different countries.† One of the first of these was that established in the United States under the name "The American Committee for the Control of Rheumatism". It began to function in 1928 under the chairmanship of Dr. Ralph Pemberton of Philadelphia, with Dr. Robert B. Osgood of Boston as one of its most active leaders. The American Committee played an important role in the dissemination of a better understanding of the rheumatic diseases in this country. It arranged a number of exhibits on arthritis at the annual conventions of the American Medical Association, printed a *Primer on Rheumatism,* and

* From the Department of Medicine and the Study Group on Rheumatic Diseases, New York University College of Medicine, New York, N. Y. This paper was read before the Section on Rheumatism, The Medical Society of New Jersey, Atlantic City, April 25, 1949.

† There is in addition a Pan-American League for the Study and Control of Rheumatic Diseases,[2] and plans for similar leagues in Europe, Africa and Asia.

served as liaison with National Committees in other lands and with the International League. However, as it was a committee, its membership had to be limited and it soon became obvious that wider membership was desirable. For this reason, in 1930, the American Rheumatism Association was founded.

The success of the Association has been most encouraging. Although still not numerically large—there are less than 500 members—its membership includes most of the physicians in this country who are serious students of the rheumatic diseases. It has done much to keep the practicing physician in touch with current trends by means of the *Primer*[4] and the annual review of the medical literature on arthritis and rheumatism which is published each year by a committee headed by Dr. Philip Hench.[5] It has encouraged formation of affiliated societies on a state, regional or city basis, with the result that there are now 13 such affiliated societies and 13 more are in process of affiliation or formation.

That money as well as men and ideas would be needed for a successful attack on the rheumatic diseases, was appreciated by the American Rheumatism Association and, shortly before World War II, a committee of the Association studied the feasibility of a fund raising campaign. The attack on Pearl Harbor put an end to such a plan at that time, but following the end of the war, the proposal was studied once more. Meanwhile, independent fund raising efforts had been launched by the Detroit Fund for Crippling Diseases and the National Arthritis Research Foundation. It seemed to the officers and Executive Committee of the American Rheumatism Association that only confusion could result from a number of separate drives, and a Committee on Research and Education was appointed, under the chairmanship of Dr. Paul Holbrook of Tucson, to study the feasibility of a unified fund-raising effort. Conversations were held with representatives of the Detroit Fund for Crippling Diseases and of the National Arthritis Research Foundation. They readily agreed to concentrate effort on a single national organization under the sponsorship of the American Rheumatism Association. In this way, the Arthritis and Rheumatism Foundation came into being on March 3, 1948. Under the leadership of Mr. Floyd Odlum a strong and active Board of Directors has been formed consisting of both influential laymen and representatives of the American Rheumatism Association. A Medical and Scientific Committee has been appointed under the chairmanship of Dr. Russell Cecil to guide professional and scientific policies. Through a Committee on Rheumatic Diseases of the National Research Council a comprehensive survey has been carried out of the nation's facilities for patient-care, research and training in this field. Many local chapters of the Foundation have been established; an intensive campaign to make the public aware of the importance of the rheumatic diseases has been launched; and a substantial start has been made in building the organization needed for an annual fund-raising effort. All who are interested in the problem of rheumatism can be encouraged by the knowledge that the American Rheumatism Association now has a powerful ally and that at long last a national organization has been founded which can provide the funds so seriously needed for research, training and the care of the sick.

Mention must also be made of the extremely important work of the Masonic Foundation for Medical Research and Human Welfare. This foundation, which was established in 1947 by the Grand Lodge of the Masons of New York State, selected the rheumatic diseases as its first target. Through the Foundation, research centers have been established in a number of the universities of New York State and important research programs are being supported. Pioneer efforts of this kind have significance even beyond that of the research they foster, for they point the way to similar developments in other regions and indicate the public's growing awareness of the seriousness and importance of these diseases.

SCIENTIFIC ADVANCES IN THE CAMPAIGN AGAINST THE RHEUMATIC DISEASES

It would be a rash individual indeed who would attempt to list specifically the most im-

portant scientific advances in the field of the rheumatic diseases. Opinion as to which are the most important would certainly differ widely; however, certain general advances may be cited.

a. *Nosology*—One of the most important is the adoption of a uniform nomenclature. Progress is inevitably impeded until a clear differentiation can be made between various disease entities and until there is general acceptance of the names applied to them. The table shows the classification of the Standard Nomenclature of Diseases[6] which has been adopted by the American Rheumatism Association. No one asserts that it is perfect. An entirely satisfactory classification cannot be achieved until the nature of some of these diseases is better understood. However, this classification has the very great merit that it has been accepted as standard and much confusion has been eliminated by its adoption.

b. *Recognition of the Nature of Degenerative Joint Diseases*—Closely related to the development of an acceptable classification has been the growth of better understanding of the nature of some of these diseases. Perhaps most imporant in this area has been the recognition that osteoarthritis—or, as it is better called, degenerative joint disease—is distinct from rheumatoid arthritis and that it is a degenerative process. Much still remains to be explained but it is now clear that this disorder is related to the process of aging and to wear and tear.[7, 8]

c. *Recognition of the Relationship of Hemolytic Streptococcal Infection to Rheumatic Fever*—During the latter part of the last century and the first few decades of this one the protean nature of the manifestations of rheumatic fever and the tendency of the disease to follow tonsillitis was definitely established by the work of many investigators. The exact pathogenesis of the disease is still unknown, but one great advance of recent years has been the proof that rheumatic fever is related to infection with group A hemolytic streptococci.[9, 10, 11]

d. *Advances in Knowledge of Connective Tissue*—Much has been learned in recent years about the pathologic changes occurring in degenerative joint disease, rheumatic fever, rheumatoid arthritis and other rheumatic diseases. Probably of most basic importance, however, are the fundamental investigations which have led to the concept that these are diseases of connective tissue and, essentially, of the interfibrillar part of connective tissue.[12] By means of electron microscopy, the finer structure of connective tissue has been explored;[13] and hand in hand with these structural studies have gone chemical investigations on hyaluronic acid[14] and other components of connective tissue.

ADVANCES IN THERAPY

(1) *Prevention and treatment of arthritis due to known microbial agents:* Advances in the treatment of these forms of joint disease with the sulfonamides and penicillin have paralleled the success of those agents in the treatment of infections in general. The usefulness of streptomycin in tuberculous arthritis is not yet certain; but infections of the joints due to other micro-organisms are now rarely seen because of adequate treatment of the underlying infections. The few cases that occur can usually be readily cured.[4]

(2) *Prevention of rheumatic fever:* A natural result of the proof of the relationship between rheumatic fever and hemolytic streptococcal infections and of the discovery of the susceptibility of the latter to sulfonamides and penicillin was the use of these agents in rheumatic fever.[15, 16, 17, 18] Their effectiveness in preventing recurrences of the disease (by preventing the inciting hemolytic streptococcal infections) is one of the most important therapeutic advances in recent years. Unfortunately, they are ineffective once rheumatic fever has begun; or even if given after the onset of the inciting infection.

(3) *X-ray therapy of spondylitis:* Another important therapeutic advance has been the application of x-ray therapy in rheumatoid (Marie-Strümpell) spondylitis. Although the mechanism of action is not understood, the benefit is striking.[19]

(4) *Gold therapy of rheumatoid arthritis:* Differences of opinion as to the value of gold

in the treatment of rheumatoid arthritis are too great to permit its unqualified inclusion in a list of important advances.[4] However in spite of very competent dissenting voices, most users of gold would consider it worthy of mention here and also the use of 2, 3 - dimercaptopropanol (BAL) in the treatment of toxic reactions to gold.[20]

(5) *Compound E in rheumatoid arthritis:* The preliminary report by Hench, Kendall, Slocumb and Polley [21] on the use of the adrenal cortical hormone, 17-hydroxy-11-dehydrocorticosterone (cortisone or compound E) and pituitary adrenocorticotrophic hormone (ACTH) in rheumatic diseases is very recent and it is too early for mature evaluation. However, if the early promise is fulfilled, this will unquestionably be one of the great therapeutic discoveries of our time and, in addition, will open new avenues of research as to the cause and pathogenesis of rheumatoid arthritis, rheumatic fever and other diseases.

(6) *Adrenocorticotropin in gout:* Recent reports [22] on the effects of the adrenocorticotrophic hormone (ACTH) in gout[23] are of considerable interest. A single intramuscular injection of this hormone can lead to rapid relief of joint pain, apparently through stimulation of adrenocortical activity.[24] Following withdrawal of the hormone there is likely to be a new attack of gouty arthritis apparently as the result of a temporary reduction in adrenocortical activity. Similarly the injection of ACTH between attacks is prone to induce a bout, apparently by the same mechanism.[23] The possible relationship of this action to that of cortisone, described above, invites speculation. What the eventual therapeutic value will prove to be requires further experience, but the importance of these observations in studies of the mechanism of gout is obvious.

(7) *Growth of Scientific Skepticism:* Another advance in therapy has been the growth of scientific skepticism on the part of physicians in the evaluation of remedies advocated for the rheumatic diseases. This has been not merely a "negative advance" resulting in the discarding of many older remedies of no or little value; but has been reflected in the growing realization that the value of new agents recommended for the treatment of a chronic disease like rheumatoid arthritis, subject to spontaneous remissions, can be determined only after painstaking, controlled observations over periods of years.

(8) *The Prevention and Correction of Deformities:* One may look forward with confidence to a day when rheumatoid arthritis can be effectively controlled. When that time comes, the prevention and correction of deformities will cease to be a problem. Until then, the increasing recognition of what can be accomplished for the prevention and correction of deformities by relatively simple mechanical procedures must be rated one of the important contributions of the past twenty years.

(9) *Rehabilitation of the Disabled:* Another important step forward is a growing realization that it is part of the physician's responsibility to help his patients rehabilitate themselves physically and emotionally even after the active disease process is quiescent. Rehabilitation requires patience and determination but its importance cannot be overestimated in the case of those victims whose disease has progressed to a state of serious disability.

Through the painstaking collection and analysis of data which well organized arthritis clinics have made possible, there has gradually evolved a knowledge of the prognosis and course of the various rheumatic diseases which was lacking two decades ago. This type of advance is not spectacular, but it has been an important element in the modern understanding of these diseases.

Underlying most of these advances and discoveries has been a very significant increase of scientific interest in the rheumatic diseases. Until recently few data were available as to the magnitude of the problem they present; today such information is at hand. Twenty years ago little fundamental research on these disorders was being done compared with that on most other chronic illnesses. Today research still lags, but at least much more and much better research is in progress than formerly was the case; and interest and the quality

of work advances steadily. As a result one may look forward to still more rapid progress in the future.

PROBLEMS FOR THE FUTURE

a. *Education of the Profession and the Public*—Although the medical profession is better informed about the rheumatic diseases than formerly, there is still room for improvement. Far too many physicians look on their arthritic patients as troublesome problems to be placed in the hands of others as rapidly as possible. To an even greater extent there is need of education of the public. There has developed in the profession a healthy skepticism regarding nostrums for the treatment of rheumatism and arthritis. Unfortunately this is not true of the public, as illustrated by the wave of newspaper and radio advertising of such nostrums, now so prevalent. One important task in the years ahead will be to work for an informed public opinion regarding the rheumatic diseases.

b. *Provision of Adequate Facilities for the Care of Patients*—Because of the prolonged care required by patients with the rheumatic diseases and because most of them soon exhaust their funds, the problem of hospital care is extremely difficult. There is urgent need of more and better facilities with public support. Such units should provide all the facilities needed for the care and study of patients with rheumatic diseases, including rehabilitation services and research laboratories. The weight of opinion, however, is that they should be built as parts of general hospitals and not as isolated institutions.

c. *Research*—In spite of the advances enumerated above, there is of course, urgent need of further research into the causes and treatment of all these diseases. Great strides have been made in the prevention of rheumatic fever, but treatment is still inadequate and the pathogenesis of the disease is imperfectly understood. The possible relationship of rheumatic fever and rheumatoid arthritis needs elucidation as does the nature of the latter disease. In particular, the significance and usefulness of the adrenocortical compound E will demand immediate exploration. Information about degenerative joint disease and gout is still fragmentary. The confusion that surrounds fibrositis and other non-articular forms of the rheumatic diseases badly needs clarification. These are only a few of the problems which require further research but they will serve to illustrate how much remains to be solved.

d. *Stimulation of Greater Professional and Public Interest*—The interest of the medical profession in the problem of rheumatism has grown steadily in recent years. To this must be welded a greater interest and understanding among the general public. Without this, the work of the Arthritis and Rheumatism Foundation can accomplish little in providing the support so greatly needed for research and training and patient care.

Much does remain to be accomplished but, in closing, I should like to emphasize the strides already made. In the collection of some of the material for this paper I had occasion to write to one of the distinguished members of our profession, and in the course of that correspondence received a letter from his secretary who is herself a victim of rheumatoid arthritis. In her letter she included the following paragraphs:

"There has been engendered, it would seem to me, an undue spirit of pessimism with regard to the medical profession's present knowledge of the nature of rheumatic diseases and the available medication and procedures to combat them. With the patent medicine groups shouting hallelujahs all over the land surely it would not be out of order for the specialists in the field of rheumatic disease and all their confreres, to bend every effort toward dissemination of such valuable data as is now in hand rather than to seem to deprecate it as more or less negligible. No one questions the need for further research or the advisability of rehabilitation measures in cases in too advanced a stage to yield to earlier arrestive or curative treatment, but to me the problem is a quantitative rather than a qualitative one. In other words, let it be stressed that there is indeed far too large a number of persons learning unduly late of the arthritic nature of their physical difficulties, but let it also be emphatically stressed that when diagnosis is made at an early stage and treatment instituted upon a basic knowledge of internal medicine the patient does not have to be tortured in his waking and sleeping hours by visions of wheel-chairs and the inanities of occupational therapy. Who, with any factual knowledge of what can now be done for the arthritic, would not rather be presented with a verdict of ar-

thritis than one of cancer, tuberculosis, heart or kidney disease or many other chronic ailments?

Gentlemen of the medical profession in general and arthritis specialists in particular, here is a challenge to you to be of good cheer lest some well-informed lay arthritic turn up with an admonishment to you not to weep for a cause that is far from lost!"

It seems to me that these words of an arthritic patient sound the note on which to close these remarks.

CLASSIFICATION OF RHEUMATIC DISEASES

1. Arthritis due to infection. Specify joint and infection when known, as:

   Arthritis of spine due to tuberculosis
   Arthritis of knee due to gonococcic infection
   Arthritis of wrist due to pneumococcic infection
   Arthritis of knee due to syphilis

2. Arthritis due to rheumatic fever. Record rheumatic fever as primary diagnosis invariably.
3. Arthritis, rheumatoid, of . . . . Specify as:

   Arthritis, rheumatoid, multiple (proliferative arthritis,* atropic arthritis,* chronic infectious arthritis,* Still's disease*)
   Arthritis, rheumatoid, of spine (Marie-Strumpell arthritis,* ankylosing spondylitis,* von Bechterew spondylitis,* spondylitis ankylopoietica,* spondylitis rhizomelique*)

4. Arthritis due to direct trauma of . . . . Specify joint and trauma, as:

   Arthritis of knee due to contusion
   Arthritis of elbow due to habitual dislocation

5. Neurogenic arthropathy. (Charcot joint*) Specify joint and cause, as:

   Tabetic arthropathy of knee

6. Arthritis due to gout. Specify joint. Record gout as primary diagnosis invariably.
7. Degenerative joint disease, multiple, due to unknown cause (osteoarthritis,* hypertrophic arthritis,* degenerative arthritis,* chronic senescent arthritis*).
8. New growths of joints. Specify joint and neoplasm as:

   Synovioma of knee

9. Hydrarthrosis, intermittent, of . . . . Specify joint.
10. Fibrositis. Specify joint or area.
11. Myositis, bursitis, neuritis, and neuralgia. Specify muscle, bursa or nerve involved.
12. Diseases in which arthritis, arthropathy or arthralgia is frequently associated (diagnose disease, list joint manifestation as symptom).

    Acromegaly
    Acute disseminated lupus erythematosus
    Cyst of meniscus of knee
    Dermatomyositis
    Drug intoxication. Specify drug when known
    Erythema multiforme exudativum
    Erythema nodosum
    Hemophilia
    Hysteria
    Ochronosis
    Osteochondritis dissecans
    Osteochondromatosis
    Periarteritis nodosa
    Psoriasis
    Purpura, various types
    Raynaud's disease
    Reiter's disease
    Scleroderma
    Serum sickness

* Names in parentheses are synonyms.

A bibliography of 24 citations appears in the author's reprints.

New York University

REPORT ULCERS IN TWINS

Professor A. C. Ivy of the University of Illinois is asking physicians to join with him in a research project on peptic ulcers in twins. Through the entire vast literature of peptic ulcer, there are only six reported cases of peptic ulcer in one or both of twins. Since twin births occur once in every 86 deliveries, there must be plenty of clinical material available. If you know of any such cases, or have any at any time in the future, you can help in this project by sending the details to Dr. A. C. Ivy, Department of Clinical Science, 1853 West Polk Street, Chicago 12.

ROUND-UP OF BRITISH MEDICAL PLAN OPINION

For the sum of two dollars, you may obtain a special number of the *Practitioner,* Britain's long-lived medical journal. This issue is devoted to an on-the-spot review of the actual workings of the National Health Act in Great Britain, written by the doctors who are practicing under it every day. To obtain a copy, send check for two dollars to The International Practitioner Company, 12 East 41 Street, New York 17, N. Y., and ask for the October 1949 Extra Number, the review of the National Health Service Act.

PSYCHOSOMATIC MANAGEMENT IN THE RESPIRATORY ALLERGIC PATIENT

Louise Fischer, M.D., Newark, N. J.

During a study of the results of combined otolaryngologic and allergic treatment in patients with respiratory allergy it was observed that an accurate conclusion as to the improvement could not be reached. This was because, in many patients, the *subjective* estimate of progress was at variance with what was observed *objectively*. These estimates were variable from week to week. The subjective estimate of the patient seemed to depend upon fluctuating factors, such as his emotional state, his economic state, the amount of time and interest that the doctor gave him, and the weather.

The amount of attention the patient was receiving from the doctor, whatever the therapy used, seemed the only important factor that could be put under control. It was decided, therefore, to place attention *per se* into the therapy. This was done in the form of directed psychotherapeutic technics rather than the usual "sympathetic understanding" which is supportive rather than therapeutic.

Methods of therapy used in combatting illness include the pharmacologic, biologic, surgical, psychologic and physical. We use these methods in greater or less degree according to our training and judgment. The wider our training, the more our judgment operates in a free and untrammelled manner; and the less our personal preference is foisted upon a patient who himself has no understanding of his affliction.

To become familiar with the multifarious attitudes which an organ may adopt in health or disease, it is necessary, in the training of a specialty, to focus attention on the special structures involved. This is at once the strength and weakness of the specialty. It results in the isolation of the organ within the individual as far as diagnosis and therapy are concerned. If the knowledge so obtained may be reintegrated into the general structure of the study of health and disease *in the individual as a whole,* then a strong basis for the treatment of an organ or a system may be achieved. This paper presents a case in which the specialist has worked from the complex point of view of the individual as a whole, rather than by the isolation of a special system.

The doctor who is able to use all technics, each in its place, is the one who will relieve the majority of patients. The specialist who wishes to do this must widen his field to embrace associated or allied fields which bear upon his specialty and without the mastery of which he must feel restricted and limited. Thus, dermatology may no longer be practiced without a comprehension of allergy, endocrinology, psychiatry and radiation therapy, if one is to fulfill the needs of the patient. The same may be said of cardiology, neurology, urology and all the other clinical specialties.

In the past we have been taught what pathology is present from the static descriptive viewpoint. With the development of physiology we began to view how these changes take place. The next question is: *why* does the physiology become disordered? From here we are led into the fields of endocrinology, immunology, the autonomic nervous system and the psyche. In the further study of these fields lies the "how and why" which Claude Bernard referred to.

In the treatment of the following patient I have used a complex approach to therapy.

CASE REPORT

David was a 7 year old child, with a family history of allergy. He had rashes, diarrhea and vomiting frequently, and continuous colds during the first two years of life. At the age of 2 he had a first attack of asthma following a cold. Since then he has had frequent and prolonged attacks of asthma, continuous nasal obstruction and discharge, worse in summer.

Physical examination showed a pale, fragile appearing boy. Mouth breathing was con-

stant. The nasal turbinates were enlarged, boggy and pale, and filled the nares. The nasal discharge was watery. The tonsils appeared enlarged but not diseased. The large turbinates prevented the passage of nasopharyngoscope. The chest was normal on occasion. During attacks the findings were typical of bronchial asthma.

Skin tests for allergens were positive for various foods and inhalants, including dust, ragweed, timothy, plantain, feathers, flaxseed, kapok, potatoes, mustard, chocolate and peanut.

Psychologic studies revealed that fantasies of death were present in the mind of this 7 year old child, who behaved in a most resigned manner. During his attacks of wheezing he was passive, quiet and resigned. When asked if he was uncomfortable he said "No". He was cynical (if that term may be used of a child) as to a possible cure. His attitude was overrealistic, unoptimistic and hopeless. He said he wanted to cooperate, but his underlying attitude was one of disbelief. Desensitization therapy with dust, ragweed, timothy and plantain, and his elimination diet were started in the usual manner. At the same time the mother was educated as to the meaning of his fantasy life. The mother had been a poor and over-worked daughter in a family split by divorce. She felt she was a burden on her mother. Consequently she was determined to do the best for her child so he would not suffer a childhood like hers. This resulted in an over-anxious and over-indulgent attitude accompanied by feelings of inadequacy and hostility. Self-analytic discussions and re-education were started with the mother. A revealing interview is the following:—

"I didn t want Michael (older child). I had trouble with intercourse and didn't want children because the world was a rotten place. David was conceived and I was despondent and ill. I didn't take care of my first child because I didn't want him. I didn't want children because I didn't think they would be happy. But my husband wanted children."

Under elimination, desensitization therapy, and psychotherapy, the child started to improve so that periods of two or three days of freedom from attacks began to develop into two or three weeks of freedom from attacks of asthma. For a short time at the beginning of treament, the psychologic role of the doctor was that of "parent" to the child, while the mother was being educated as to her role. After six months the child "transferred back" to the mother and the role of the doctor was again resumed. During this period of six months the attitude of the child was revised from that of resigned hopelessness to belligerency. A change toward robustness was evident in his physique and in his attitude.

At the beginning of this period several severe attacks of asthma, fantasies of dying and wishing to be killed occurred as follows: One day the child was brought to my office in severe asthma. Adrenalin and aminophyllin had no effect upon him and he left the office in slightly better state than that in which he had been brought in. The mother, who was kept informed of the psychologic state of the child, kept notes as follows:

David slept for about four hours when we came from your office. Then he perked up and got up for a little while, but in the evening started vomiting violently. He had nothing all day but a little juice and a little water. (Attacks of vomiting alternated with asthma at this time.) He received his pencil case which was the promised present and started in to write, "David is sick".

During the night David said:—"Mother, go down to the kitchen and get a knife and kill me."

Mother:—"No I won t, I don't want to go to the electric chair."

David:—"Then get me the knife and I'll kill myself."

He made this remark many times, "I'll kill myself."

Sunday—just before I called you, after vomiting violently, David became very dizzy and kept saying anxiously, "Mother straighten the mirror, I am going to be knocked out!"

After you called I told him you were thinking about him and how much you liked him, etc., he began to be pleased and happy and ate his soup, he retained most of it, lost part of it, and had me pour it back in the plate to see whether he had been able to keep some of it. He was pleased to find he had kept some of it. Talked cheerfully to his father and me and perked up generally.

Sunday evening complained, moaned and cried with the pain in his stomach. Kept reiterating "I'd rather be dead. I wish I was better. I'll never be better. Mother, I'd rather be a kid that gets beat up all the time than be sick."

The ambivalence of the child's attitude is here apparent. He vomits, then measures the

vomitus to see how much he retained. He says "I would rather be dead, I wish I was better, I'll never be better". His masochistic attitude is seen when he says he would rather be "beat up" than be sick. He finds it difficult to relinquish his self punishment altogether. The hostility of the mother is manifest in her reason for refusing to kill her son at his request. One could hardly call this the reply of a loving mother.

During the middle of his six month period he drew a picture in my office:—A big man is walking in the street. Behind him is a small boy with a gun. The boy wants to shoot the man. Tne man turns around and knocks the gun out of his hand.

Doctor:—"If you could, would you shoot the man?"

Patient:—"No, I would turn the gun around and shoot myself."

This picture fantasy indicates a feeling of hostility against the authority figure which is turned against the self with self punishment administered in life, in the form of asthma. This idea was explained to the child and it was emphasized that it would be better to allow the little figure to shoot the big man than to have asthma.

Another interview bears this out.

Doctor:—"How are you?"

Patient:—"Fine."

Doctor:—"Are you wheezing?"

Patient:—"I can wheeze when I want to and not wheeze when I want to."

Doctor:—"Yes, let me hear."

A stethoscope is applied and he makes the wheeze come and go at will. The doctor explains to him the structure and physiology of the lung in figures of speech that a child can understand, using a tube and two balloons.

Doctor:—"The balloons get too stretched and they don't feel good."

Patient:—"Are they alive?"

Doctor:—"The lungs are alive and they feel bad when the tube is too tight."

Patient:—"Oh I know, they are my spirit and they can go 'pop'."

This is a masochistic expression of the lungs bursting.

Doctor:—"As long as you can wheeze when you want to, or not when you want to, we must try to keep them from getting too tight, and you must help."

He was advised, when he felt hostile, to let the feelings come out against the others rather than retain within himself how he felt. He was very happy with this permission and soon became belligerent and overbearing toward the family who were informed and educated as to the nature of the change. The following dream was reported by the child at this time:—

"Mother and I are walking behind a big man. I have a gun with no bullets in it. The man has bullets and he turns around to shoot. I throw my gun at his gun and knock it out of his hand. My brother knocks him down and he falls under a truck and is killed, with blood all over."

This dream was prefaced with the giggled remark: "Oh, I had a bad dream, a terrible dream, I did a bad thing."

This indicates a change, in the subconscious, from a feeling of helplessness against the over-authoritative father (as manifested in the previous drawing about the gun) to one of hostility. Asthma did not occur during this period. Later the family and the patient were educated as to a middle course of behavior which would lie beween resignation and belligerency.

Examination of the tonsils did not reveal evidence of infection, but hypertrophy was present. Intercurrent sinus infection was treated locally. Tonsillectomy is of benefit to the patient only if indicated, but it was felt that if hypertrophic adenoids could be removed, more adequate airway in the nasal passages might be obtained. Accordingly, when the asthmatic state had subsided to a sufficient extent, tonsils and adenoids were removed. The tonsils were found to be filled with a dark, purulent, grumous exudate which had never been evident to the examining eye. A vaccine was made from his exudate and added to the desensitization therapy.

Allergists are aware of the remarkable change which often takes place in the allergic child under treatment. With the use of all the tools which have been developed to combat respiratory allergies, including otolaryngologic technics, desensitization therapy and psychologic management, the time for the control of illness was probably reduced in this case.

COMMENT

The chronic patient should be handled as

a whole, with needs of the moment fulfilled by local and supportive measures. Needs of the immediate future are fulfilled by immunologic measures. Long term needs are met by emotional education. When the complaint has been brought under control by local and immunologic measures, emotional education is designed to maintain the *status quo*. A great deal of time is involved and this difficulty is dealt with by accepting patients on a case-contract basis rather than on a fee per visit basis. The doctor can then allow as many visits as are necessary to keep the patient comfortable, either from a physical or psychologic point of view. Since most of the patients who fall into the scope of this paper are "chronic", they accept this form of medical treatment willingly.

Use of the psychiatric tool in a scientific manner, changes the doctor-patient relationship so that the physician may impart to the patient (by means of the latter's gaining insight) that which the understanding doctor formerly kept in his own mind. Much may be accomplished by a doctor who has an "intuitive" approach toward his patient. But if, in addition, he acquires skill in the use of psychiatry as a scientific tool, he may then enable the patient to understand that which goes on in his mind and which tends to militate against improvement. The improvement is solidified and stabilized when the emotional state of the patient is stabilized.

The technics and principles used included those of the various schools of psychoanalysis. Freud, Jung, Alexander, Adler, Horney and Rank were freely drawn upon for interpretation and procedure. The classical method of psychoanalysis was modified to fit in with office procedure for patients who did not know they were being psychoanalyzed and were not informed of this fact at any time.

The studies were called "discussions". The classical steps of transference, positive or negative, the criteria for ending and other technical points of analysis transpire without the formal knowledge of the patient. Indeed, it seems to me that if a patient interposes his somatic system between his conflict and his psyche, the only way he may be treated, is one in which he does not know he is being analyzed. If he had the capacity to face his emotional conflict, emotional symptoms would be manifest. He would then recognize the need for a psychiatrist without the interposition of somatic symptoms. The somatic involvement is an escape from emotional conflict.

In the foregoing case, it may be true that the psychologic difficulties of this child *followed* the disease rather than preceded it. The issue is not which factor is etiologically first. At times it seems to be one and at times the other. The psychiatrist might say, "With such a mother who wouldn't have asthma?" The allergist might say, "With such asthma who wouldn't have emotional difficulties?" The otolaryngologist might say, "I have seen allergic disorders remedied by surgical means." They are all partly correct but we must think in all these terms at once if we are to help people more than we have in the past.

Resistance from the patient to treatment, more particularly in the adult, is an important factor in the management of these cases. It interferes with the progress of therapy. I have found the best method of handling this resistance to be a contractual agreement by doctor and patient on a term of treatment, usually a year.

The message of this paper is this: In chronic "organic" illness, there is almost always a psychologic or emotional component. Whether the emotional component preceded the somatic one or *vice versa* is not the issue. The physician must be equipped to handle both. This should be obvious to the doctor who has tried to refer patients to psychiatrists when the former come to him with organic complaints for which he can find no basis. By mastery of the tool, psychiatry, which includes the administration of insight into the patient, the doctor may defeat the basic reluctance of the patient to improve. When this tool is used, in combination with a case contract agreement regarding the fee (a maneuver which is necessary to control an unwittingly unwilling patient) it is a step forward in combatting disease.

31 Lincoln Park

PRE-ANESTHETIC PREPARATION IN CHILDREN*

Lester C. Mark, M.D., and E. M. Papper, M.D., New York City

Pediatric anesthesia is no longer synonymous with open-drop ether administration. With important modifications, since a child should not be considered simply as a little adult, most of the anesthetic agents and procedures originally developed for use with adults are now being applied advantageously to children. Meanwhile the scope of surgery in infancy and childhood has broadened widely and its volume has multiplied. Increasing numbers of children are being subjected to surgical procedures, with the inextricably associated emotional stresses. To the uninitiated juvenile mind, the mystic and potentially terrifying ceremonies surrounding the routine of the operating room, culminating in the induction of anesthesia present the most violent impact of all. Pre-anesthetic preparation in children is thus a two-pronged procedure, problems of psychologic as well as pharmacologic management both demanding attention.

There is a growing awareness of the need for proper psychologic handling of the entire hospital experience of these young patients.[1] The responsibility for meeting this need is shared by the parents, the doctors, and the hospital personnel. Pre-anesthetic preparation really begins in the home.

Guidance for parents should be available as a matter of course from the attending physician and the social service department of the hospital. The parents should recognize that the separation involved in hospitalization menaces the all-important security a young child derives from them and from the familiar environment of the home; while an older child is more concerned with the threat of impending pain.[2] Either child should be prepared for the event with a brief matter-of-fact recital a day or so before. The attractive side of hospital life in general, such as the company of other children, the fun of a bath in bed, meals served on a tray, etc., should be stressed and the purely medical aspects presented as a small part of the whole routine. He should be told that there may be pain afterward, but none during the operation. Any other questions should be answered simply and truthfully. No child should ever be lured to the hospital under false pretences. Once inside, the parents should remain with the child as long as possible. When they must leave, the child should be reassured of the fact and time of their return. It would be desirable for hospital regulations to permit the parents to remain with their child until the induction of anesthesia is completed and to be present again when he awakens, provided of course that parental anxiety can be controlled in the interests of the child.

The hospital should provide an attractive atmosphere, with gaily painted furniture and walls decorated with colorful murals. Personnel should be specially selected and trained for the proper psychologic handling of pediatric patients.[3] Understanding, patience and warmth are essential: the child should be helped to feel at ease. He should be allowed to observe other youngsters at play nearby and be assured that he will be joining them in a few days.

"The anesthesiologist's second power, the psychologic approach to the handling of patients,"[4] is especially applicable in pediatric anesthesia. The pre-operative visit affords an excellent opportunity to make friends with the child, to gain his confidence, and to explain in an understandable manner the anesthetic procedure planned. The occurrence of events on the next day, exactly as promised, with the sight of the anesthetist's familiar face, is the best reassurance possible for the young patient. Gentle, quiet handling without restraint is essential. Soothing "vocal anesthesia" leads.

* From the Department of Anesthesiology, New York University—Bellevue Medical Center. This paper was read by invitation at the 183d Annual Meeting of The Medical Society of New Jersey, April 25, 1949.

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into the unhurried induction of anesthesia and is continued until the child is fully asleep.

Pharmacologic aspects of pre-anesthetic preparation must not be neglected. The drugs acceptable for premedication in adults afford certain advantages, including the suppression of secretory activity, the diminution of reflex excitability, and the alleviation of apprehension, which are equally to be desired in children. Dosage is of course modified, with appropriate consideration given to age, weight and physical status. The commentary following is pertinent for the average child in good physical condition. In children with complicating factors such as dehydration, chronic illness, serious physical disability (e.g. congenital or rheumatic heart disease, tuberculosis, etc.) the anesthetic management must be individualized.

The utility of the belladonna drugs for premedication in children is generally accepted, but there is no unanimity of preference for either scopolamine or atropine. For example, Leigh and Belton state that scopolamine is the superior drying agent,[5] while Burstein [6] and Smith [7] prefer atropine for this effect. These attitudes, while based upon extensive clinical experience, have been hitherto undocumented by controlled evaluation of the relative merits of the belladonna derivatives. Recently West and Papper [8] completed a series of 225 consecutive cases of combined tonsillectomy and adenoidectomy, from which they concluded that, in this situation, scopolamine was superior to atropine in both drying effect and psychic sedation. The dosage of either drug for the usual patient undergoing this operation was varied with the age as follows: 14 months to 5 years, 0.0002 gram; 5 to 10 years, 0.0003 gram; 10 to 12 years, 0.0004 gram.

Premedication with potent narcotics (such as morphine, opium and meperidine in appropriate amounts) may be used to advantage in children to alleviate apprehension and facilitate the conduct of anesthesia. Morphine and its congeners present difficulties of accurate dilution and measurement of the small doses required. Meperidine is to be preferred for its convenience in this regard. It also offers the advantage of some parasympatholytic properties, among which is an antisecretory action.[9] The dosage listed by Leigh and Belton [5] can be recommended for the average patient. Another useful preparation is paregoric, of which 10 minims is a suitable dose for the infant from 6 months to 1 year of age.

In a busy emergency room, minor surgical procedures lasting less than ten minutes, such as the incision and drainage of abscesses, the suture of small lacerations and the reduction of simple fractures, may be performed conveniently with open-drop vinyl ether anesthesia.[10] In such cases, premedication adds little to the ease of induction and maintenance of anesthesia and may readily be eliminated. Should a more prolonged operative procedure be anticipated, however, a belladonna drug would materially aid in controlling tracheobronchial secretions. In these lengthy cases, of course, vinyl ether should be replaced by a more suitable agent after the induction of anesthesia has been completed.

Basal anesthesia has long been advocated as an effective prophylaxis against the occurrence of psychic trauma in the immediate pre-operative period. It has been stated that "except in case of urgency . . . . no conscious child should ever see the (operating) theatre or be submitted to the terrors associated with the induction of inhalation anesthesia"[11] and that "the ideal to be aimed at is that the child should fall asleep before operation and awaken again afterwards in its own bed".[12] Various drugs, especially paraldehyde,[13] avertin [11] and the barbiturates[14,15] have been used rectally and orally for this purpose; most popular has been pentothal sodium given via the rectum.[16,17]

Chief objection to basal narcosis has been

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the necessity for its administration by the anesthetist himself at the patient's bedside, with consequent disruption of a busy operating schedule. To meet this criticism, children have been transported to the operating room while awake and have then received the basal drug. The disturbance inherent in this transfer is in itself sufficiently upsetting to negate the benefits of basal anesthesia for the child who needs them most. This obstacle has been obviated by a procedure originally devised to meet another need expressed by Jackson,[18] who was able to demonstrate a causal relationship between pre-operative apprehension and tachycardia during pediatric anesthesia. She concluded that to maintain a more nearly physiologic pulse rate during anesthesia in children, it is advisable to bring them to the operating room free from fear. This is our basic thesis, here restated with emphasis on the circulatory effects. The method developed for this purpose has been described as pre-anesthetic hypnosis with rectal pentothal in children.[19] This refinement in technic, as compared with basal narcosis, is as follows:

A simple cleansing enema is administered the night before. The next day, the usual pre-operative hypodermic medication (omitting barbiturates) is given. Thirty minutes before the scheduled time of operation, sodium pentothal in 10 per cent solution in water is instilled rectally. Accurate dosage is employed, based on a standard of one gram per 75 pounds of body weight, appropriately modified for any abnormalities of weight or metabolism. In any case, an arbitrary maximum dose of one gram is not exceeded. The 10 per cent solution of sodium pentothal is freshly prepared by a member of the Anesthesia Department on the same day (or the night before) it is to be used. The dose for each child is measured into an individual container and delivered to the ward in advance. At the proper time, the drug is introduced into the child's rectum by the nurse on the ward. The only apparatus required is a ten cubic centimeter syringe fitted with a metal tip adapter for the attachment of a soft rubber catheter, size 10, French. The internal volume of the catheter was measured and found to be one cubic centimeter. This extra amount of 10 per cent pentothal solution is added to each individual dose. To assure precision of dosage, the nurses' instructions are that, upon completion of the instillation, the catheter is to be withdrawn from the rectum still attached to the syringe and thus retaining its intrinsic volume of solution. Gentle quiet handling of the children on the ward, in transit and in the operating room is stressed.

Results with rectal pentothal hypnosis are gratifying. Two-thirds of the children fall asleep within fifteen minutes after the pentothal has been administered; the remaining one-third become drowsy, quiet and submissive. About 75 per cent of the sleeping children are not disturbed by the transfer to the operating room and the induction of anesthesia; the remaining 25 per cent react to the disturbance of being moved or of being anesthetized by squirming feebly in their sleep or by opening their eyes questioningly. With this group and with the children who are awake but drowsy, quiet handling and gentle reassurance achieve full cooperation without fear or resentment. With the low dosage employed, profound depression is not encountered. There is no respiratory depression, obstruction or asphyxia.

The course of anesthesia following rectal pentothal hypnosis is also praiseworthy. No restriction is imposed upon the choice of the subsequent anesthetic agent or the preferred technic. However, irritant vapors (e.g., ether) should be cautiously introduced to avoid stimulation. Where no contraindication exists, cyclopropane is preferred for its non-irritant qualities. The average maintenance pulse rate (i. e., the average of frequent pulse readings recorded during operation) in a hundred cases conducted as described, was 120 per minute (124 for the 76 children under 7 years of age; 110 for the 24 youngsters over 7 years old). In order to view these findings in their proper perspective, they should be compared with Jackson's series [18] of 108 cases (none of whom received pentothal) who came from the same wards of the same hospital, underwent similar operative procedures, and were handled by practically the same nurses, surgeons and anesthetists. She recorded an average maintenance pulse rate of 141 per minute for the entire series (157 for the 46 children under 7 years of age, 129 for the 62 youngsters over 7 years old). The efficacy of pre-anesthetic hypnosis in producing a more nearly physiologic pulse rate during anesthesia is apparent.

18. Jackson, K.: Anesthesiology, 9:573 (November 1948).
19. Mark, L. C., Fox, J. L., and Burstein, C. L.: Anesthesiology, (1949) In press.

The problem of dosage of rectal pentothal should be emphasized. The regime recommended for basal anesthesia is one gram for each 50 pounds of body weight,[16] or its equivalent of 0.2 cubic centimeters of a 10 per cent solution per pound.[17] Pre-anesthetic hypnosis is readily achieved with distinctly lighter doses, i. e., one gram per 75 pounds of body weight (or, for purposes of calculation, 0.13 cubic centimeter of a 10 per cent solution per pound). The nursing personnel can thus safely administer the prepared doses to their young patients and deliver them to the operating room without inconvenience to either the anesthetist or the surgeon.

A new thiobarbiturate,† is undergoing extensive clinical testing at Bellevue Hospital. This compound, sodium allyl 1-methylbutyl thiobarbiturate, resembles sodium pentothal in its sphere of usefulness and methods of administration. The unsaturated allyl group apparently confers added potency to the drug: the effective dose in a given situation is about 80 per cent of the amount of pentothal which would have been required. Given rectally, it † has proved useful for bronchoscopy in children.

SUMMARY

The psychologic aspects and the pharmacologic management of pre-anesthetic preparation in children are discussed. Scopolamine and meperidine in suitable doses afford satisfactory premedication. For very brief emergency procedures, vinyl ether is useful without premedication. Pre-operative apprehension in children can be eliminated by rectal pentothal hypnosis, the procedure for which is described in detail. A new thiobarbiturate † is mentioned.

535 East 14th Street

AWARD FOR ESSAY ON UROLOGY

The American Urological Associaton offers annual awards totalling a thousand dollars for essays on the result of some clinical or laboratory research in urology. Deadline is February 20, 1950. For particulars, write to Dr. Charles Shivers, 121 South Illinois Avenue, Atlantic City, N. J.

OPPORTUNITY FOR NEW JERSEY PHYSICIANS

Fort Dix needs several civilian physicians for five-day week, eight-hour day jobs. The salary is $5232 per year, with 30 days paid vacation annually. Unmarried physicians may obtain billets on the post at nominal cost. These doctors are not *in* the Army; they are civilians. They will serve an 800 bed hospital with a large outpatient department, and be furnished the necessary instruments and equipment without charge. Interested doctors should write to the Post Surgeon, Fort Dix, New Jersey; or telephone extension 3150 at Fort Dix 2000.

ANESTHETICS FOR THE ASTHMATIC

People suffering from allergies, and especially asthma, are more susceptible to anesthetics than other persons. Brennan reports in the August issue of the *Annals of Allergy* that the success of anesthesia in the allergic patient depends upon proper planning or proper selection of the drugs to be used. The critical time usually comes after the operation is over. Actually very few cases of allergy to the commonly used inhalation anesthetics have ever been reported. But with the newer drugs and the injectable anesthetics, the story is different. With this much depends upon the skill of the anesthetist. He should always be given a chance to study the patient before the operation so that he can intelligently prescribe the proper drugs. Not infrequently, Brennan points out, it may be necessary to select a second choice of anesthetic agent or procedure, rather than the original choice, because of this potential complication.

† A Parke-Davis preparation tradenamed as *Surital Sodium*.

CANCER OF THE CERVIX *

George P. Koeck, M.D., Newark, N. J.

Cancer of the cervix is important because it is one of the most frequent forms of carcinoma and because of its accessibility and curability. Much depends on bringing cases to treatment early.

Early cases are the ones with a high survival rate. To place these patients under early treatment, it is necessary constantly to be on the look-out for them. The cervix is in a position where one may palpate, observe and obtain a specimen with relative ease. Any woman with leukorrhea should have a thorough pelvic examination. Any ulcerated cervix should be biopsied and any patient having a persisent "cervicitis" should have a biopsy. It is never wise to observe, for any length of time, a suspicious lesion of the cervix without taking a biopsy. This is especially true with a woman nearing, or in her menopause. Carcinoma of the cervix is a disease of the menopause; and the menopause unfortunately is a mask for many early cases of carcinoma.

A rectal examination should also be done and a specimen taken of any suspicious lesion. In bleeding from a hidden source, the cervical canal should be palpated with a sound.

Carcinoma of the cervix is second only to cancer of the breast in females. In both these forms of carcinoma there is a 70 per cent or more "five year survival rate" when treated early before lymphatic spread has occurred. Yet, when most cases of cervical cancer are seen for the first time there is already local or distant spread of the disease. This is a challenge to the medical profession to discover the early cases.

Average age for carcinoma of the cervix is 49 years. The disease has been present as early as 21 and as late as 86 years of age. But to emphasize again, the vast majority occur about the time of menopause. This is often misleading to the patient who attributes her symptoms to menopausal changes and puts off examination until the growth has made too much progress. As a result, only 10 to 15 per cent of cases are discovered in the early stages of the disease. There is a persistent finding of a low incidence of carcinoma of the cervix in Jewish females. The reason for this has never been satisfactorily explained. Thus, in the state of New York (including New York City) the incidence rates of carcinoma of the cervix (from 1942 to 1944) showed that only five per cent of the cases were in Jewish women.

Marital status is a contributing cause for carcinoma of the cervix. Over 90 per cent of cases occur in married women who have been pregnant. In married women who have not been pregnant the incidence falls to a low of 7.2 per cent. In single women the incidence is only 2.5 per cent. The inciting factors here are probably irritation, contusion and inflammation of the cervix. These conditions are important. (If they can be prevented or treated early then carcinoma of the cervix should become less frequent.)

Earliest symptom may be a serious discharge. This occurs before spotting. Spotting and bleeding are the symptoms most frequently described, but they come later and persist until the disease is well established and has spread beyond the cervix itself.

Hemorrhage, pain and odor are late symptoms and signify extensive inroads by the growth beyond the cervix.

Few cases are seen soon after the onset of symptoms. About 5 per cent of cases are seen in patients having symptoms for less than one month; about 15 per cent from one to two months; about 25 per cent from three to five months; about 21 per cent from six to eleven months; about 16 per cent from one to two years; and 11 per cent from two to three years or more. Thus most cases occur in patients having symptoms from three to twenty-three months.

The "protruding" or "cauliflower" type projects from the cervix in an outward direction, tends to be localized longer and usually offers a better prognosis. The infiltrating type in contrast may not show much on observation with a speculum, but tends to infiltrate and spread sooner and more vigorously to the uterus, parametrium, lymph nodes and vag-

* Read before Radiologic Section of The Medical Society of New Jersey, April 26, 1949.

inal wall. Its prognosis is accordingly worse.

Most of the carcinomas of the cervix (about 85 per cent of them) belong in grades III and IV, while only about 1 per cent are grade I malignancy; these are probably adenocarcinomas of the cervix. This classification, however, is too important, for regardless of grade, radiosensitivity is not a corrollary. Although the microscopic picture is important, it is no true guide as to response of radiation therapy. Only treatment will determine this.

In 1937 at the "League of Nations" a clinical classification for degree of disease in carcinoma of the cervix was established. Although this classification is a clinical one and not exact in many ways it is a very useful one. By it, one is able to classify cases as to extent of disease before therapy is begun. Then, it offers a good index of prognosis, and also regulates the kind and type of therapy best for the individual case.

Stage I: The growth is confined to the cervix. It may protrude into the vagina or uterine cavity, or be ulcerated and necrotic, but it has not spread beyond the confines of the cervix. This lesion offers the best prognosis.

Stage II: The disease has spread beyond the cervix. It has invaded one or both parametria; it has spread into the wall of the vagina or the uterus. It may or may not be ulcerated. It has not spread as far as the pelvic wall or beyond the inner third of the vagina. There are no evident lymph node involvements. This condition offers a good prognosis and most cases when first seen, fit this stage.

Stage III: There has been spread to one or both pelvic walls by direct extension or spread to the lymphatics at the pelvic wall even though the primary lesion on the cervix is small. Stage III is also present where the outer third of the vaginal wall is invaded. The prognosis here is not good. Too many cases are sent to therapy when they have reached this stage.

Stage IV: Represents involvement of the bladder wall, the rectal wall or rectum; or the vaginal wall is infiltrated as far as the vestibule; or there is evidence of distant metastasis. These are almost hopeless for any aid except some palliation. But even here, in some cases a remarkable relief from symptoms and prolongation of life is possible.

Only 10 to 20 per cent of patients when first seen for treatment are in Stage I. Another 6 to 18 per cent are seen when in Stage IV. Most cases, therefore, (75 to 80 per cent) are in Stages II and III. Although the prognosis here is fair (about 50 per cent five year survival rates) it could be much higher if treatment was begun in Stage I.

Ever since the discovery of x-ray and radium, carcinoma of the cervix has been treated by these agents. Surgery has been attempted for cure, mostly in the early selected Stage I cases. With proper irradiation of the tumor cells, radiation is the treatment of choice. Adjacent lymph nodes, especially the iliac obturator and hypogastric nodes should receive, if possible a tumoricidal dose of radiation. This is probably true in Stage I lesions, for even in early lesions 20 to 25 per cent of the cases show lymph node involvement.

It is relatively easy to deliver the necessary irradiation to the cervix and adjacent tissues with radium or x-ray alone; but the crux of the matter is to deliver a tumoricidal dose to the lymph nodes in the lateral pelvic walls. Any method that will do this, without causing severe or permanent complications is good therapy.

The cervix, uterus and vagina are permeated with many lymphatic channels and intercommunications. The channels of drainage are chiefly to the iliac, hypogastric and obturator nodes from the cervix and to the same areas plus the lateral lumbar glands from the fundus of the uterus. There are also drainage routes to the iliac glands from the inner vaginal wall. When a radium tandem and radium in the form of a bomb are applied with adequate dosage to the cervix there is delivered a tumoricidal dose of radiation to the cervix itself. But the adjacent parametrial tissue receives an inadequate dose. There is hardly any radiation at all out so far as the pelvic walls. This alone, therefore, is inadequate to control the disease.

External irradiation directed into the pelvis from four or six pelvic ports is applied with the aim of controlling the disease in the parametrial tissues and pelvic lymph node areas. In itself, however, it usually does not deliver a tumoricidal dose in these areas, but with a supplemental dose through another route, a destructive amount can be delivered. The skin is a limiting factor to the total dose applied through external ports.

Chief internal methods of radiation therapy are by means of radium needles inserted into the parametrial tissue, variable forms of cul-

postats or x-ray through intravaginal cones. In the hands of an experienced operator any of these with adequate dosage can deliver the estimated amount of irradiation to the lateral parametrial tissues.

I have used the intravaginal cone therapy bcause it is an easy method of application, dosage can be calculated accurately, it will render less severe the complications of therapy and can probably give higher doses to deeper structures in the pelvis. At Memorial Hospital in New York, the parametrial needle method of therapy was tried at the same time that vaginal cones were first used. The incidence of severe complications from the needles was two to three times that found in the cone cases. This type of therapy, therefore, was discontinued, because of severe complications. This, however, does not mean that the type of treatment is not successful, for in competent and experienced hands, excellent results have been obtained with radium needles. Waterman, Pitt and Corscaden are leading and successful exponents of this type of therapy. The method, however, is not simple and an inexperienced operator can run into much difficulty.

With vaginal cones for the treatment of carcinoma of the cervix, it is possible to focus the lesion directly in the center of the x-ray beam. Cones are of varying size from 2.5 to 3.5 centimeters in diameter. They are easy to insert and adjust to the individual pelvis and lesion. When in place each cone position is checked with a light, to insure exact localization of the x-ray beam. The cones direct the x-ray beam through a central, a right and a left pelvic direction. In this way the entire pelvis is subjected to an intense well-directed x-ray beam. It is possible to direct the cones at a 30 to 40 degree angle to each pelvic wall to the area of the lymph node nests. The x-ray beam can be adjusted to promote a deep or a superficial penetration depending on the location and extent of the disease. The cones are directed toward the sacral promontory in most cases thus, avoiding the rectum and bladder.

That it is possible to direct the x-ray beam by means of vaginal cones to the lymph node areas was shown by x-ray films of a patient who was operated upon where metal tags were placed on the pelvic lymph nodes. A cone was then inserted and placed in the three positions, and an x-ray picture was taken. It was nicely demonstrated that the tagged nodes were in direct line with the x-ray beam.

Studies with a phantom pelvis show that it is possible to get a high dose of irradiation to the lateral pelvic walls, and as high as the upper sacral segments with deep x-ray therapy, and a great concentration of x-ray about the cervix and parametrium, in superficial x-ray therapy through vaginal cones.

With external irradiation and vaginal cones, it is readily possible to deliver a tumoricidal dose of x-ray to the cervix, uterus and, most important, to the lymph node areas. This plus a tandem of radium into the uterine canal should deliver sufficient irradiation to eradicate any lesion amenable to x-ray therapy.

With this plan of therapy, statistics after three years of follow-up at Memorial Hospital in New York City show good results. The early Stage I lesions, show 70 per cent of cases alive and without disease. In Stage II there was a 43 per cent survival rate; Stage III had 7 per cent and Stage IV had no survivals. Combined Stages I and II gave a 54 per cent three year survival rate. Thus the outcome of cancer of the cervix depends on the stage in which it is detected, and the treatment instituted. With an effort to place more early cases under treatment these survival rates should approach closer to the 70 per cent rather than the 50 per cent successes.

305 Roseville Avenue

DISCUSSION

Dr. Alan O. Godfrey (Newark, N. J.): In any discussion of carcinoma of the cervix, division of opinion invariably centers around the relative merits of radiation, and radical surgery. It should be acknowledged that, in general, results of radiotherapy and x-ray are superior to those of surgery. I will confine my discussion to cases where it is desirable to employ surgical means without previous radiotherapy, or to patients who are destined to die, even after maximum radiotherapy.

In intraepithelial carcinoma of the cervix in a young woman a modified Wertheim operation, saving one ovary is adequate to cure the disease, and prevents the patient from becoming a castrate from radiation. Adequate application of radium will cure the majority of invasive, but local cervical growths.

In up to 80 per cent of Stage I growths, the glands are unaffected, in up to 70 per cent of Stage II growths they are free, and in more than 50 per cent of Stage III growths there is no malignant involvement. Is it in these "gland-free" cases that the radiotherapist, in the past, has obtained his successes? It is in the "gland-involved" cases that a radical all-out attack must be launched, whether it be by more effective radiation, or radical surgery. Dr. Koeck has shown that he was delivering x-rays to the obturator, hypogastric and iliac lymph nodes, although from his own isodose curves, some might question whether 1500 tissue roentgens were cancerocidal. However, intravaginal roentgen therapy, plus external irradiation and intracervical radium such as used by Dr. Koeck, the New York Memorial Hospital, and other institutions has proved to be an effective method of combatting cervical carcinoma and its regional metastases.

If radium plus x-ray is so effective, why do we ever bother with surgery in these cases—a procedure which is laborious and back-breaking for the surgeon? First, we know from the work of Bonney, Taussig and others that 20 per cent of patients with lymph gland involvement can be salvaged by surgery. Secondly, certain cancers are resistant to radiation. Third, x-ray and radium therapy are not entirely devoid of early and late reactions, and carry a mortality from the treatment about equal to radical surgery as practiced by some of the outstanding men. Morton and Kerner have tabulated reactions to x-ray and radium therapy in the treatment of carcinoma of the cervix in 580 cases. There was a mortality of almost 4 per cent attributable to radiation. These cases were treated by intercavital radium, and external x-ray therapy. Vaginal cones such as described by Dr. Koeck were not mentioned. The indication for radical surgery are:

1. Radioresistant growths.
2. Stenosis of the vaginal vault.
3. Large fibroids or ovarian cysts complicating carcinoma.
4. Perhaps certain Stage IV cases with invasion of the bladder or rectum.

The indications for pelvic lymphadenectomy are:

1. In selected Stage III cases, in which the cervix has been cured locally by radium.
2. This procedure could be extended to include Stage II, and selected cases of Stage I.
3. It would offer a statistical check-up on the effectiveness of the various methods of irradiation, interstitial radium.

General adoption of surgery in carcinoma of the cervix would lead to inadequate operation, or result in needless mortality and morbidity. Dr. Koeck mentioned to me before the meeting that in certain cases he had treated, the referring surgeon desired to do a complete hysterectomy, and that he was pretty sure that the surgeon had no conception as to what is meant by "radical surgery" for treatment of this disease. It cannot be emphasized too strongly that if surgery is done, it must not cut through cancer areas, but must completely extirpate them, just as in doing a radical mastectomy, we begin by thoroughly dissecting the axilla, and sometimes the supraclavicular and scapular regions. No ordinary total hysterectomy will suffice. The obturator, hypogastric, iliac, aortic and lumbar nodes must be thoroughly dissected. The sacro-uterine ligaments should be severed at their pelvic origins, and at least the upper half and preferably the upper two-thirds of the vagina should be removed. The blood supply to the ureters must not be compromised. It often takes the surgeons most experienced with this operation from three to five hours to complete it.

Pelvic lymphadenectomy leaving the uterus and cervix for a radium holder carries a lower mortality than the Wertheim or similar operations. It can be done extraperitoneally if desired. However, it must be just as thorough, for cutting through or leaving a single cancer cell means certain death for the patient.

Cancer does not spread with the rapidity of a bacterial infection, and although emphasis has always been placed upon early treatment, a few days to get the patient in condition for treatment, whether it be radiologic or surgical is well spent. We all know that immediate reactions are greater and more frequent in anemic patients, and that clearing up the local infection in and around the cervix pays worthwhile dividends. Treatment by intravaginal x-ray cones before surgery or radium certainly reduces the incidence of infection more effectively than any of the antibiotics, and probably prevents cancer spill during the radical operation for carcinoma or manipulation, incidental to dilating the cervix for radium.

In conclusion, it would appear that (1) the combination of intravaginal x-ray, radium, and external irradiation such as described by Dr. Koeck can and does kill cancer cells in the lymphatic chains. The three year results as obtained in the Memorial Hospital are enviable. It will be interesting to observe the five and ten year cures. (2) Anemia and infection should be combatted before treatment is instituted. (3) Efforts should be continued to determine the radiosensitivity of tumors by frequent biopsies after treatment. (4) Pelvic lymphadenectomy should be more generally practiced, even if only to determine whether x-ray was actually killing the cancer cells in the irradiated glands. (5) The Wertheim operation or its numerous modifications while indisputably excellent in the hands of those experienced and skilled in its use, should not be generally adopted at this time, and should be used only in selected cases with definite indications.

STATE ACTIVITIES

WELFARE COMMITTEE

OCTOBER 2, 1949

The Welfare Committee held its first meeting in Trenton on October 2 with an attendance of 43.

LEGISLATION

The Committee reported on state and national legislation of major importance relating to various aspects of public health. The Committee announced that Dr. Joseph F. Londrigan will temporarily represent the Society in the Legislature.

PUBLIC RELATIONS

This Subcommittee's report covered the projects and program for the current year. The Committee is planning two conferences this fall—the annual public relations conference in November to be held concurrently with a conference of the Committee of 21 on the Educational Program; and a statewide medical press conference in November with members of the Society and allied professions as members of a panel and the audience to be newspaper editors from all over the state.

MEDICAL PRACTICE

1. Throughout the state there is considerable variation as to interns and residents writing histories and doing physical examinations. The Committee deems it advisable that they be allowed to do this work on all hospital admissions as it will broaden their hospital experience to a great extent.

Recommendation: The Welfare Committee recommends that the Medical Society favor such a practice that interns and residents write histories and do physical examinations on both private and ward patients.

2. The New Jersey State Board of Nursing proposes that individuals applying to schools of nursing, who have had previous college training be allowed as much as 3 months credit for each year of college taken before admission to a school of nursing. The time allowance would be limited to a total of nine months and would not apply to the combined or integrated college nursing program, and would not eliminate the required minimum of classes and services.

Recommendation: The Welfare Committee recommends that the Medical Society concur in this proposal of allowance for college credits as submitted by the New Jersey Board of Nursing.

3. The New Jersey State Board of Nursing proposes that nursing schools be required to allow up to six weeks sick leave for each student, distributed throughout the three year course.

Recommendation: The Welfare Committee recommends that the Medical Society concur in this proposal.

4. The New Jersey Interscholastic Athletic Association, requests the cooperation of the Society in the administration of an insurance program which provides protection against the costs of medical care in the event of injury to school pupils during athletic contests, which program is in jeopardy because of physicians' fees for treating the injured student.

Recommendation: That the Chairman of the Board of Trustees be empowered to appoint a committee consisting of the chairman of the Welfare Committee and two members of the Board of Trustees to study this matter and present specific recommendations at a subsequent meeting of the Trustees.

5. Requests to the Society for information on the establishment of a general practice service in general hospitals, in line with the recommendation of the House of Delegates, and for information on other phases of general practice, have thus far been referred to an outside organization, the New Jersey Chapter, American Academy of General Practice, for reply. It is felt that such replies and information should be given by the Society through an appropriate committee.

Recommendation: The Welfare Committee recommends that an Advisory Committee on General Practice to the Subcommittee on Medical Practice be established.

PUBLIC HEALTH

1. The Division of Motor Vehicles is at present undertaking to give physical examinations to all drivers over 65 who have been involved in an accident. The cooperation of the medical profession has been requested. The examination is to consist

of a reasonable history and physical examination without detailed examination of the vision and without laboratory work. The program is already underway but has met with some difficulties because a few physicians are charging as much as $15 to perform the examination.

Recommendation: The Welfare Committee recommends that the members of the Medical Society be requested to perform physical examinations on automobile drivers over age 65 who have been involved in an automobile accident for a uniform fee of five dollars. This examination is not to include laboratory work or visual tests.

2. In an effort to determine what physical conditions were present in persons involved in fatal automobile accidents, the Advisory Committee on Adult Disease Control has been asking the family physician of the driver to write a note to the Committee stating the existence of any physical conditions. This information is considered privileged and remains entirely in the hands of the Committee for analysis and interpretation. More reports are needed on these accidents from family physicians in order to arrive at any conclusion. The present rate of reply is only 45 per cent.

Recommendation: The Welfare Committee recommends that the members of the Medical Society be notified formally by the State Society of the survey which is underway in reference to medical conditions which may exist in the drivers of automobiles involved in fatal accidents. The cooperation of the profession should be requested and an expression of appreciation for past cooperation made.

3. The *Manual of Standards for Private Hospitals,* of the Hospital Licensing Board of Institutions and Agencies, requires that the Department of Health set up standards for maternity and newborn services. The Department of Health has requested the Medical Society to approve the standards. The Advisory Committee on Child Health has approved the standards with additions and modifications, as has the Public Health Committee. The Welfare Committee approved the standards with additions and modifications submitted plus an additional change on page 4—"All premature infants should be under the *care* of a pediatrician" to read "under the *supervision* of". The Advisory Committee on Maternal Welfare has not yet indicated its position on these standards.

Recommendation: Contingent on the action of the Advisory Committee on Maternal Welfare, the Welfare Committee recommends the approval of the proposed standards with the additions and modifications indicated.

MEDICAL-SURGICAL PLAN

The Welfare Committee recommends to the Board of Trustees that every necessary step be taken to utilize, publicize and further develop the Medical-Surgical Plan as an adequate answer to the proponents of compulsory health insurance.

MEDICAL PROCEDURES IN ADMINISTRATION OF TEMPORARY DISABILITY BENEFITS LAW

SEPTEMBER 26, 1949

The committee designated by the Board of Trustees, comprising Dr. Paul B. Reisinger, Dr. Bernard A. Hirschfield, and Dr. Patrick H. Corrigan, all of Trenton, to advise with the administrators of the Temporary Disability Benefits Law, conferred on September 8, with M. E. Cuskaden and Dr. Carl Weigele of the State Health Department, who is temporarily serving as Medical Director of the Temporary Disability Benefits Program. Mr. Bryan, Executive Officer acted as secretary of the conference.

This conference was held at the request of the T.D.B. representatives, who notified the Medical Society that the Unemployment Compensation Commission desires a panel of qualified consultant physicians throughout the state to whom claimants for the benefits may be sent for review and consultative examination in certain cases in which the claim appears to be running beyond the normal time expectancy for the diagnosis or for any other circumstance which would indicate desirability of review by a consultant physician.

The proposal of the UCC to establish a panel of consultants is authorized by Section 25(b) of the Temporary Disability Benefits Law which reads as follows:

"A person claiming benefits under the State plan shall, when requested by the commission, submit himself at intervals, but not more often than once a week, for examination by a legally licensed physician or public health nurse designated by the commission. In all cases of physical examination of a female claimant, the examination shall be made by a female designee of the commission, if the claimant so requests. All such examinations by physicians or nurses designed by the commission

shall be without cost to the claimant and shall be held at a reasonable time and place. Refusal to submit to such a requested examination shall disqualify the claimant from all benefits for the period of disability in question, except as to benefits already paid."

UCC representatives made it clear that examinations will be required only in protracted cases. In most cases, the Bureau accepts without question the initial prognosis made by the physician on the first claim, but it is in connection with repeated "Confirmations of Continued Disability" that questions arise as to the legitimacy of further payments. At present the load of such required examinations is estimated at between 100 and 150 per month. This is expected to increase. Fees are to be paid by the state to the consultant physicians according to a schedule to be agreed upon by the Medical Society and the UCC. Paper work is to be reduced to the minimum.

After considerable discussion, all present were informally agreed that the following procedure should be recommended, at least for trial.

In lieu of requesting each county medical society to set up either a list of special consultants it is proposed that when special examination of a claimant is desired, a request will be made to the attending physician that he arrange for examination of his patient by a consultant *to be selected by the physician,* the report of such examination to be forwarded to the UCC, either by the attending physician or consultant and the consultant to be remunerated by the UCC according to the standard fee for such services to be arranged.

It is recommended that each county medical society designate a small committee of its members to concern itself with all aspects of the Temporary Disability Benefits Program and to be charged especially with the duty of educating members of the county society concerning the Temporary Disability Benefits Law, the manner of its administration, the function of the physicians thereunder and the over-all responsibility of the medical profession for proper execution of this program.

It is anticipated that such a county society committee might be called upon to investigate the qualifications of a consultant selected by an attending physician under this program if any question should arise as to the qualifications of such a consultant to act in that capacity in any case. Such county committees may be called upon occasionally by the UCC to investigate and adjust differences of opinion or questions of procedure that may arise between UCC and the attending physician.

Representatives of UCC indicated to the Medical Society committee that although the section of the law above quoted contemplates that a consultant physician in any given case would be "designated by the Commission", they are entirely agreeable to give a fair and exhaustive trial to the plan proposed by the Medical Society committee, allowing free choice of consultant by the attending physician—thus obviating the necessity of selecting panels of consultants in all parts of the state.

It has also been made clear in correspondence by representatives of UCC that with special reference to Section 25(b) the UCC "has no intention of going outside of the medical profession" (by employment of public health nurses for special examinations) at any time it may be necessary to invoke this provision of the law.

The committee recommends to the Board of Trustees that this report be approved and that this committee be authorized to proceed with representatives of the UCC to put it into effect; and further that The Medical Society of New Jersey request each county medical society to designate a committee for the purposes above described.

Approved by our Board of Trustees October 23, 1949.

BOARD OF TRUSTEES

OCTOBER 23, 1949

The Board of Trustees met in regular session on October 23, 1949, at the State Society Headquarters, Trenton, and took the following actions:

1. Resignation of Dr. Earl L. Wood as secretary was accepted with regret.

2. Dr. Marcus H. Greifinger, Newark, was unanimously elected Secretary until the next Annual Meeting.

3. Dr. Elmer P. Weigel, Plainfield, was unanimously elected Delegate to the A.M.A. until the next annual meeting to fill the vacancy created by the death of Dr. Thomas K. Lewis.

4. Dr. J. Lawrence Evans, Jr., Leonia, was unanimously elected chairman of the Publication Committee until the next annual meeting to fill the vacancy created by the death of Dr. Henry C. Barkhorn.

5. Dr. Reuben L. Sharp, Dr. J. Lawrence

Evans and Dr. William E. Dodd were appointed members of the Audit Committee.

6. Contribution of $50.00 authorized to the New Jersey Health and Sanitary Association as a sponsor of the Association's 75th anniversary program booklet.

7. Action of September 29, 1946, reaffirmed: "That the Medical Society shall, at no time, sponsor or publish a directory listing physicians as specialists, having specialized training or specialized interests."

8. Reply to Veterans Administration, requesting list of specialists, to indicate above reaffirmed action of the Trustees and suggest that VA circularize the physicians of New Jersey as to their specialty, and VA establish its own list of specialists from these records.

9. Recommend to the House of Delegates that it consider the recognition of 50-year practitioners by formal resolution.

10. Finance and Budget Committee is requested to investigate establishment of a retirement or pension plan for the staff, in consultation with representatives of the staff, and to report their findings to the Board at a subsequent meeting.

11. Appointment of Advisory Committee to the Cerebral Palsy League of New Jersey confirmed. Committee: Dr. Henry Briggs, orthopedist; Dr. Harrold A. Murray, pediatrician; Dr. Lewis H. Loeser, neurologist; Dr. Henry A. Davidson, psychiatrist; Dr. Sigurd W. Johnsen, Internist.

12. Membership status of those who have not paid the A.M.A. assessment was referred to counsel for legal opinion.

13. New Jersey Health Congress was granted specific permission by the Board to hold its meetings in the State Society Building.

14. Resolution on the death of Dr. Thomas K. Lewis unanimously approved. (page 532)

15. Resolution on the death of Dr. Henry C. Barkhorn unanimously approved. (page 532)

16. Recommendation approved that Dr. Barkhorn's services to the profession be memorialized in the form of a tablet to be placed in the new nurses home of Presbyterian Hospital, Newark, where for so many years he was an instructor; that the membership of the society be circularized and offered an opportunity to contribute toward this memorial.

17. The report of the Delegates to the A.M.A. of the June, 1949, Atlantic City meeting was approved.

18. The Executive Officer, Mr. Bryan, was auhorized to attend the A.M.A. Annual Conference of State Society Secretaries and Editors, November 3 and 4, and the Second Annual National Public Relations Conference, November 5 and 6, in Chicago.

19. Dr. Joseph F. Londrigan, Hoboken, was designated as the Society's representative on the Hospital Advisory Council of the State Department of Institutions and Agencies.

20. Recommendation approved that a congratulatory letter be sent to the Connecticut State Medical Society which recently built and moved into their own headquarters building.

21. The report of the Special Committee on Temporary Disability Benefits (page 529) was approved and the Committee authorized to proceed with representatives of the UCC to put the proposals into effect. It was further adopted that the Society request each county medical society to designate a committee for the purposes described in the report.

22. The recommendations of the Welfare Committee (page 528) were concurred in by the Trustees.

23. Dr. Marcus H. Greifinger, Secretary, was authorized to attend the Conference of State Secretaries and Editors, November 3 and 4, Chicago.

24. Mr. Bryan, Executive Officer, was authorized to represent the Editor, Dr. Davidson, who is unable to attend the November 3 editors' conference.

25. Dr. Luke A. Mulligan, Chairman, Public Relations Committee, was authorized to attend the Conference on Public Relations, November 5 and 6, in Chicago.

26. Recommendation that a token donation of $100 to the Committee on Revision of the Pharmacopoeia for establishment of national headquarters in New York City was approved.

27. The Board recorded a vote of confidence in President Norton for his position taken in regard to Medical-Surgical Plan and its sales agent, Hospital Service Plan; and recommended that the President, Dr. Norton, and the Society's counsel, Mr. O'Mara, confer with the President of Medical-Surgical Plan, Dr. Schaaf, and the Plan's counsel, Mr. Sorg, in an effort to resolve differences regarding the relationship between The Medical Society of New Jersey and Medical-Surgical Plan and the relationship between Medical-Surgical Plan and Hospial Service Plan.

28. The Trustees recommended to the Board of Trustees of Medical-Surgical Plan that they confer with the counsel to the Medi-

cal Society on the agreement between Medical-Surgical Plan and Hospital Service Plan.

RESOLUTION ON THE DEATH OF HENRY C. BARKHORN, M.D.

By the sudden and untimely death of Henry C. Barkhorn, M.D., on July 27, 1949, The Medical Society of New Jersey sustained an irreparable loss. Long regarded as one of our most distinguished and wisest counsellors, Dr. Barkhorn had served the Society loyally, faithfully and competently in many capacities, most notably as a member, and for the past twenty years, as chairman of the Publication Committee. The pages of our JOURNAL, during his stewardship, reflect his discerning mind, his administrative ability and his scholarly attainments.

Although a master cranial anatomist, diagnostician and surgeon, who attained preeminence in his chosen field of otology, he remained a kindly, simple and modest man, beloved by his friends, patients and fellow practitioners for his unfailing generosity in all circumstances and for the countless acts of charity which he never personally mentioned but which brought comfort and healing to so many people.

Possessed of an acute social conscience, he gave unstintingly of his time, thought and energy to social welfare projects; and no worthy charitable cause ever failed to enlist his interest and support. Although he never sought high office in medical or civic organizations, the leadership of many of these came to him by popular demand, in recognition of his devoted loyalty to any group of which he was a member. Upon retirement from each successive office which he held, he had brought organization, system and efficiency into the conduct of its affairs.

Those of us whose privilege it was to know him intimately will remember him always for his frank honesty, his sense of humor, his youthful enthusiasm and energy, his keen, alert and logical intellect, his unfailing consideration for others, his kindliness, generosity and humanity, and his total lack of hypocrisy, bigotry and intolerance. We shall miss him sorely.

Whereas, the Trustees of The Medical Society of New Jersey are fully aware of the magnitude of our loss in the death of Dr. Barkhorn; be it therefore

Resolved, that we record our deep sorrow in the death of our beloved friend and colleague, Dr. Barkhorn; that we express our lasting gratitude for his monumental contribution to the welfare of the people and the physicians of our state, and most especially to that of The Medical Society of New Jersey; and that we extend to his wife and family our heartfelt sympathy in their bereavement; and be it further

Resolved, that this resolution be spread upon the minutes of this meeting, that it be published in our JOURNAL, and that a proper copy be transmitted to Dr. Barkhorn's family.

RESOLUTION ON THE DEATH OF THOMAS K. LEWIS, M.D.

Few among our profession who have gone before and few who follow after, will leave such a record as did Dr. Thomas K. Lewis. He was born in Merchantville, New Jersey, January 7, 1887, and died in New Haven, Connecticut, August 28, 1949, and the intervening years have been filled with service to his profession, his patients and the community. His record of service to the profession will rarely be equaled.

Dr. Lewis was past-president of the Camden City and Camden County Medical Societies, member of the Welfare Committee from 1933 to 1938 and chairman of the sub-committee on Medical Practice from 1933 to 1938. It was while serving in this capacity that he drew attention to his wide knowledge of the economic side of medicine.

In 1935 Dr. Lewis was elected a trustee of The Medical Society of New Jersey and served as chairman of the board from 1937 to 1938. In 1938 he was elected Vice-President of The Medical Society of New Jersey and went on to serve as President from 1941 to 1942.

Since their foundation, Dr. Lewis was extremely active in the Medical Service Administration and the Medical-Surgical Plan and served as president since 1942.

As a member of the House of Delegates of the American Medical Association since 1942, he has been instrumental in securing for New Jersey the recognition the State Society should command in the national organization.

Dr. Lewis has had a large practice and has been beloved by his patients. He served as attending physician to Cooper Hospital from 1921 to 1949 and as Chief of the Medical Division from 1946 to 1949.

In the community, Dr. Lewis has long been active in the Y.M.C.A. He was past-president of the Camden Lions Club and much in demand as a speaker on problems of medical economics.

In World War I, he served with distinction for eighteen months overseas as Commanding Officer of the 165th Ambulance Corps of the Rainbow Division.

Whereas the Trustees of The Medical Society of New Jersey realize our great loss and wish to make some outward expression, therefore be it resolved that we do recognize and hereby record our loss and our sorrow in the death of Dr. Lewis and that we express our appreciation and gratitude of his contributions to his profession, his patients and his community, and that we extend to his wife and family our heartfelt sympathy; and be it further resolved that a copy of this resolution be spread upon the minutes as a permanent record, that it be published in our JOURNAL and that a copy be forwarded to the family of Dr. Lewis.

MEETING OF M-S PLAN TRUSTEES

Regular monthly meetings of the Trustees of the Medical-Surgical Plan of New Jersey are held at 11 a. m. on the fourth Sunday of each month at the offices of the Plan on the 12th floor of the Kinney Building, 790 Broad Street, Newark. Accordingly notice is given that the next meeting will be on November 27.

NEW JERSEY ORTHOPAEDIC SOCIETY

The DuPont Institute at Wilmington, Delaware, was the scene of the 4th Annual Meeting of the New Jersey Orthopaedic Society on October 8. Papers were presented by Doctors A. T. Wilson, P. B. Hamilton, D. J. King, S. W. Casscells, J. Collison, P. J. Strassburger, K. E. Haines and Paul Finegan, covering a wide gamut of orthopedic topics, varying from club foot to the mechanics of joint surgery, from the bacteriologic aspects of orthopedics to a description of recent visits to orthopedic clinics in Europe.

R. R. Goldenberg, M.D.,
Secretary.

NEW JERSEY NEUROPSYCHIATRIC ASSOCIATION

Under the chairmanship of its president, Dr. Henry A. Davidson, the N. J. Neuropsychiatric Association held its regular meeting at the Academy in Newark on October 19. The essayist was Dr. Samuel Kesselman, psychiatrist to the New Jersey Reformatory at Bordentown, who presented a profusely illustrated paper on the use of hypnosis to elicit the unconscious factors in antisocial behavior and to provoke a healthy abreaction. A unique moving picture film furnished the pictorial background for the paper, while appropriate sound effects were provided by a special recording of the hypnotherapeutic sessions. The paper elicited lively discussion among the members, and was followed by a brief but fruitful business session.

D. J. Flicker, M.D.,
Secretary.

OBITUARIES

DR. CYRIL S. KIRKBY

Dr. Cyril S. Kirkby of Glen Ridge, died on September 16 of poliomyelitis at Essex County Isolation Hospital.

Dr. Kirkby was born in Bloomsburg, Pa., in 1900. He was graduated from Harvard Medical School in 1926 and began his practice in Bloomfield, N. J. In addition to his private practice, he served as school physician for several years. He was senior attending physician and a consultant in diabetes at Mountainside Hospital and was also a consultant at Isolation Hospital. He was a member of the Associated Physicians of Montclair and the American Diabetic Association.

DR. HESSER G. McBRIDE

Dr. Hesser G. McBride of East Orange died on September 28 after a long illness.

Dr. McBride was born in Philadelphia in 1886. He received his medical degree from the University of Pennsylvania Medical School in 1909, and practiced medicine in Newark for 25 years prior to his illness.

Dr. McBride was a member of the staffs of St. Michael's, City and Presbyterian Hospitals in Newark and St. Mary's Hospital in Orange. He was an emeritus member of the Essex County Medical Society and The Medical Society of New Jersey.

DR. CLAUDIO E. McNENNEY

Dr. Claudio E. McNenney, chief of the Jersey City Bureau of Communicable Diseases, died on September 12 at Jersey City Medical Center.

Born in Gaunabacoa, Cuba, in 1880, and a resident of Jersey City for more than 50 years, Dr. McNenney was graduated from Columbia University Medical School in 1904. He served his internship in New York and Jersey City hospitals, and established his office in Jersey City in 1906. He was a surgeon for the Eric Railroad and had been with

the Board of Health since 1914. In 1916 he served in the medical corps during the Mexican uprisings and in World War I he was in France with the 104th Field Signal Battalion. Dr. McNenney was president of the Hudson County Medical Society in 1946.

DR. JOSEPH A. MURRAY

Dr. Joseph A. Murray, chief of obstetrical service at Bayonne Hospital, died of a heart attack on August 6 at his summer home in Avon.

Born in Bayonne in 1900, Dr. Murray prepared for his medical studies at Fordham University, and graduated from Georgetown Medical School in 1924. He practiced medicine in Bayonne 25 years, and had been director of the obstetrical department of Bayonne Hospital since 1930.

DR. ABDON V. PISKORSKI

Dr. Abdon V. Piskorski, for many years prominent in Polish activities in the state, died at his home in Jersey City on September 28 after a long illness.

Born in Poland in 1877, Dr. Piskorski was brought to this country at an early age. He was graduated from the Columbia University College of Pharmacy in 1898. After service in the Navy in the Spanish American War he entered the College of Physicians and Surgeons of Baltimore and was graduated in 1902.

He was on the staff of St. Francis, Christ and Greenville Hospitals, Medical Center, and was surgeon attached to the Hudson County Hospital for Mental Diseases at Secaucus. For 20 years he was chief medical examiner for the Sons of Poland in New Jersey. He was an organizer and for ten years president of the United Polish Societies of New Jersey.

DR. JAMES W. PROCTOR

Dr. James W. Proctor, only surviving member of the original staff of Englewood Hospital, died at his home in Tenafly on August 27, at the age of 86.

Born in Windsor, N. S., Dr. Proctor was graduuated from New York University Medical School in 1888. He served his internship at the New York Hospital and then practiced in New York for several years. He became associated with Englewood Hospital in 1895, and in 1899 was named to the new attending staff. He continued to serve in that capacity until his retirement in 1931. Dr. Proctor served for several years as Englewood's city physician. He was past president of the medical board of Englewood Hospital and the Bergen County Medical Society. He also had been physician to the Englewood Hospital School of Nursing for 20 years. Dr. Proctor was a fellow of the American College of Surgeons, a member of the New York Academy of Medicine, the Surgical Society of New Jersey, and was active in the Masonic Order.

DR. MAX ROSENBERG

Dr. Max Rosenberg of Hillside died at his home on July 31 after a short illness. A specialist in internal medicine and cardiology, he had offices at his home and in Newark.

Dr. Rosenberg was born in Budapest, Hungary, in 1905, and was brought to Newark at the age of 2. He received a B.A. degree from the University of Pennsylvania and in 1932 was awarded a medical degree from the Royal College of Physicians and Surgeons in Edinburgh, Scotland.

Dr. Rosenberg served in the Army from 1942 to 1945. He was a physician for the Hillside school system for many years. Following his internship at Beth Israel Hospital he became a member of that hospital's staff and its cardiac clinic.

DR. LOUIS SIMONSON

Dr. Louis Simonson, Newark school physician and staff member at City Hospital, died on September 4 at the age of 64.

Dr. Simonson was born in New Haven, Conn., and was graduated from the Massachusetts College of Pharmacy, Boston in 1904. He received his medical degree from Tufts College Medical School in 1908, interned at Massachusetts State Hospital, and for a time was chief pharmacist of Boston City Hospital. In 1924, Dr. Simonson moved to Newark and for 20 years was a medical examiner for the Prudential Insurance Company. He was a diplomate of the American Board of Pediatrics, a fellow of the American Academy of Pediatrics and a member of the Academy of Medicine of Northern New Jersey. He was on the staff of Beth Israel Hospital and Newark Babies' Hospital.

DR. J. GEORGE WAGNER

Dr. J. George Wagner died on September 22 at his home in Delanco after a long illness, at the age of 65.

Dr. Wagner was a graduate of the Philadelphia College of Pharmacy in 1908 and Jefferson Medical College in 1913. He was a member of the Philadelphia Roentgen Ray Society and the American College of Radiologists.

DR. FREDERICK J. WORT

Dr. Frederick J. Wort, a Newark physician for more than 40 years, died in Presbyterian Hospital on July 29, after a long illness at the age of 67.

Dr. Wort was graduated from the University of Pennsylvania Medical School in 1903 and served his internship at the university's hospital. He was consulting otologist at Essex County Hospital, Cedar Grove, and staff surgeon at the Eye and Ear Infirmary in Newark.

VIEWS AND REVIEWS

"Everybody Wants to Get Into the Act"

In an eloquent and forceful editorial appearing recently in the *Bulletin of the Hudson County Medical Society,* our fellow scribe from Jersey City addresses his thoughts to some of the larger problems of public policy posed by the current tendency toward multiplication and proliferation of new voluntary health agencies, each interested in some single sector of the human anatomy or some special —and seemingly hitherto neglected—disease entity.

Our colleague states the proposition that "it is incumbent upon the medical profession to protect the public health from exploitation regardless of how such exploitation is disguised". He points out that public charity has become "big business" but he acknowledges that this tendency has, for the most part, produced good results and was urgently needed. Nevertheless, he feels that in a few instances, charity organizations have become infected with a "personal profit" motive.

This leads to the question whether it may not be "a bit impractical and awkward to place organizations with such high motives in the position of competing with one another for the charity dollar". For one thing he suggests that administrative costs might be reduced if one united organization assumed the purposes of 8 or 10 separate organizations now in competition. Furthermore, this editorialist finds it "inequitable and irregular" to allocate such funds by the "whatever you get in the scramble" technic, rather than being guided by the incidence, morbidity, and cost factors of the respective diseases. "Must deserving indigents with cirrhosis, peptic ulcers, toxemias of pregnancy, hypertension, tularemia, toxic goiter, and nephritis wait until someone organizes a specific foundation to compete for their rightful share of the charity dollar?" he demands to know.

Again admitting that these affairs necessarily comprise "big business" he insists upon a sharp line of distinction being drawn between "big business" and "big charity". In some instances, he finds that "personalities are overshadowing patients and personal power is ofttimes being hewed more zealously than aid to the needy is rendered. Little people bloated with the power of vast funds are seizing the opportunity to appoint themselves authorities in the medical field."

Getting down to cases, the Hudson County editor condemns the "scare technic" of "the current daily box score of new polio cases complete with the superfluous information that the unfortunate victims are being treated under the auspices of such a fund or foundation. Such publicity, at the expense of a helpless patient", he asserts, "is common and distasteful".

"Big time charity", he says, needs some "rules to govern its behavior". He suggests four of them:

> 1. All press releases relative to epidemics, therapy, or medical research to be cleared through a national medical publicity bureau, where they should be checked for accuracy, authority, motive, and benefit to the public.
>
> 2. While multiple funds for combating individual diseases have produced excellent results, the advisability of amalgamating such funds and allocating the monies on a more equitable basis than the present "scramble" method should be studied.
>
> 3. Annual statements with a breakdown of receipts, expenditures and balance should appear in the press so that the public knows what is being done with their contributions.
>
> 4. In the absence of the adoption of any such suggestions, may we hope that the officers of the individual organizations correct the abuses at which these suggestions are obviously aimed.

The proposal for amalgamation of fund drives of nation-wide voluntary health organizations is not new. There is much to be said both *pro* and *con.* It remains to be seen, for example, whether a single organization could raise as much money as many organizations can raise each from that sector of the donating public which has a special interest in the particular cause to which the individual organization is devoted.

There is also some question whether consolidation of these organizations might not prove a fatal step toward national consolidation of health and medical affairs—perhaps even as a springboard from which we could readily be catapulted into socialized medicine.

Nevertheless, if we ever come to consolida-

tion of this kind, the fault will lie with the shortsighted policies of these myriad organizations, most of which are doing an outstandingly good job, but some of which have been "getting too big for their breeches". The Hudson County editor's warning is pertinent and well-timed.

Let's Go to the People!

Recently our fellow Jerseyman, Mr. Guy G. Gabrielson, Chairman of the Republican National Committee, predicted that compulsory health insurance would be a major issue in the 1950 Congressional elections. This just about makes it unanimous. For Democratic and labor politicians from President Truman down have been forecasting an outright battle of the ballots on the principal unfinished business of the domestic "Fair Deal" program—most notably the Taft-Hartley Labor Law and President Truman's socialized medicine program.

Whitaker & Baxter, National Educational Campaign directors of A.M.A., declared as long ago as last June that the medical profession would eagerly welcome a definitive submission of this issue to the voters. And, at least some of the politicians are beginning to suspect that the majority of voting citizens want no part of socialized medicine.

For example, in a recent by-election in the Sixteenth Congressional District in Pennsylvania, John P. Saylor defeated an all-out proponent of President Truman's "Fair Deal" program in the person of Mrs. Curry Ethel Coffey, widow of a popular Democratic Congressman. This happened in a labor district, hitherto strongly Democratic.

In New York, former Governor Lehman, Democratic - Liberal candidate for United States Senator, announced on October 15 that he is *opposed* to President Truman's compulsory health insurance plan and is strongly in favor of a comprehensive voluntary health insurance program. This must have come as a sad blow to Mr. Ewing, Mr. Truman and Company.

The people will ultimately be called upon to pass definitely upon compulsory health insurance. We have carried our side of the story to a good many of them but there are still lots more yet to be reached. Are you doing your part, doctor?

The Essence of Medical Public Relations

In one of the keenest analyses of medicine's public relations problem that has ever come across our desk, Mr. H. R. Norris, new public relations counsel to our own Bergen County Medical Society, discusses with rare insight the role of the individual doctor. "Whether he knows it or likes it", says Mr. Norris, "his every action is the basis of the public relations campaign of the county, state and national medical associations. The public relations committees and representatives can to some extent explain and clarify misunderstandings, mollify resentment, and call attention to the doctor's side of the argument. Whatever public resentment and dissatisfaction exists is certainly due, in very large part, to a lack of understanding. . . The individual physician then must conscientiously tend to avoid misunderstanding and consequent ill will on the part of his patients and community."

What exactly is "the individual doctor's role"?

First, he must be "constantly on guard against some careless oversight on his part which will engender ill will against the profession", writes Mr. Norris, pointing out that the public judges the entire profession by its experience with one or two members of the group.

At the top of the list of sources of misunderstanding Mr. Norris mentioned the need of discussing and explaining fees to patients. The public, he points out, forgets most of the facts of life about medical practice. The average layman does not appreciate the cost of medical education, the fact that the doctor enters late upon the market as a self-sustaining member of society, that his equipment is costly, that he is expected to render much free service and advice, that considerably less than 100 per cent of the doctor's working time is income-producing, that his credit and collection problems are to some extent unmanageable, that he faces a mountainous and unremitting task simply to keep abreast of medical science, that part of his time must be devoted to unnecessary and frivolous calls, and that in general his life is not an easy one.

"The foregoing are points so close and obvious to the practicing physician that it never occurs to him to explain or discuss them", Mr. Norris points out, "yet they are unknown to many laymen and when explained to him, tend to change his whole attitude toward the medical profession".

Turning to a discussion of the "careless oversights" which the individual physician is counselled to avoid, Mr. Norris asserts that "by far the worst of these is the failure to keep himself covered at all times". Even today, after several years of national emphasis on the problem, instances are publicized, and leave a train of unhappy results behind them which reflect upon a doctor's apparent lack of care and thought for his basic responsibility to the community.

As Mr. Norris points out, "business and industry spend millions to secure and train people to answer telephone calls intelligently" and no matter what plans a medical society may set up to cover this problem "any plan depends ultimately upon the individual physician to keep himself covered and to check on how his telephone calls are answered".

Another valuable suggestion from the same source is that the individual physician should help make his county public relations program more effective by letting his public relations committee know of his contributions to community life and welfare. Thus, when doctors speak to community groups, when they give courses to first aid units, when they serve in civilian defense, when they perform some unusual emergency job, when they serve on health boards or public examining units or surveys, they should permit their activities to be recognized and publicized as typical of the medical profession by the public relations committee, or representatives of the county and state society.

Home Care of Patients

The *Indiana State Journal of Medicine* suggests recently that county medical societies, as the action units of organized medicine, might do well to study local possibilities for relieving the pressure on the hospital through the development of programs for the home care of patients.

"We now appear to have come full circle from the old days when most patients were treated at home, through the long struggle to popularize the hospital, to the present day when such a high percentage of sickness and disability is hospitalized willy nilly", our Hoosier friend suggests. He observes that "the arc of the circle is bringing us back again to a revival of home care" as exemplified by the popular program inaugurated some years ago by the Montefiore Hospital in New York City, and subsequently adopted in varying forms in a number of other places.

As a rule, such plans are limited to patients who cannot afford the services of a private physician. Ward patients who can properly be cared for in their own homes, as determined by physicians and social workers, are returned to their homes and taken care of there through an extension of hospital personnel services.

According to an editorial in the *A.M.A. Journal* for July 2, 1949, it is anticipated that the Montefiore Hospital program will be extended to the patient who can afford the services of a private physician but not the more expensive services which his condition may demand. The *A.M.A. Journal* suggests that "this should result in a form of cooperation between hospital and practitioner in which the practitioner will have the diagnostic and therapeutic facilities at his disposal in the patient's home."

In New York, nursing care is provided by the Visiting Nurse Service on a fee basis at the request of the home care physician. Cost of treating patients at home amounts to $2.83 per patient daily or approximately ¼th of the cost of hospital care. This figure may not include the cost of the board as provided by the hospital. Nevertheless, the *Journal* declares that "home care is a practical means of providing continuous medical service to indigent patients. The method results in economy of hospital beds".

The *Indiana State Medical Journal* remarks in conclusion that "here is a field where the ideas of the smallest county society may create as valuable a contribution to this problem as that evolved by the largest societies in the U. S. A. and where the wisdom and experience of the general practitioner should rate very high".

J. E. B.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

The publication *Prenatal Care* (Children's Bureau, publication No. 4, for sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C., Price 15 cents) has been completely rewritten by Dr. Ann De Huff Peters under direction of the Director of the Division of Research in Child Development of the Children's Bureau. In previous editions of this publication emphasis was placed upon the importance of medical care during pregnancy. The tone of the current edition is different; in addition to the physical changes and hygiene of pregnancy, the mental and emotional adjustment that both parents must make is discussed. Knowing that other people have had fears and anxieties and questions in the same situation is reassuring and comforting. Incidently, it may make the doctor's telephone ring a little less often. If you deliver any patients at all, you will probably be interested in this pamphlet and wish to suggest to your patients that they obtain one.

PENICILLIN DISTRIBUTION FOR THE TREATMENT OF SYPHILIS

During the past year, 501 New Jersey physicians received penicillin for the treatment of 1151 patients in private practice. Any doctor may obtain penicillin for a patient with syphilis who needs assistance in securing adequate treatment, if he indicates this need on the back of the report card.

Two vials of procaine penicillin with aluminum monostearate (6 million units) are sent routinely with the recommendation that this be used in a ten day schedule of 600,000 units daily. For central nervous system syphilis, for which the physician may wish to administer penicillin over a longer period of time, we will send penicillin in an amount not to exceed four vials or 12 million units.

Effects of shorter treatment schedules are being studied in research centers and modifications will be announced as soon as the results warrant.

Penicillin will be supplied for retreatment in cases in which there is positive serology one year or more after the completion of a full course of treatment or in cases where there is evidence of clinical relapse or when a series of quantitative tests show a sustained rise in titre.

HALFWAY TO 2000 MID-CENTURY CHILD CONFERENCE

The Mid-century White House Conference on children and youth, fifth in a series called each decade since 1909, by the Presidents of the United States will be held in 1950. President Truman has called on the Governors of all states to appoint participating committees.

The Mid-century Conference will have the following objectives:

1. Focus attention on our concern for children and youth in a world in which spiritual values, democratic practice, and the dignity and worth of the individual are of first importance.
2. Bring together, in usable form, our present knowledge about the status of children, their physical, mental, emotional, and moral development; and identify areas in which further knowledge is needed.
3. Point up the needs of parents in providing adequately for their children; and suggest ways of helping them do a better job.
4. Look at the physical, social, economic, and moral environment in which children are growing up; and recommend ways of improving it.
5. Appraise present services of children and youth; map the direction in which services should develop; point up ways in which the number of qualified workers can be increased and the skills of these workers sharpened.
6. Examine into the ways people are now working together for children; and develop ideas for more effective teamwork.
7. Initiate steps for the achievement of the conference recommendations in the coming decade.

ALLERGY SOCIETY MEETING

The management of atopic dermatitis will be reviewed at the meeting of the New Jersey Allergy Society to be held on November 22, at 9 p. m., at the Academy of Medicine, 91 Lincoln Park, Newark. The essayist, Dr. Louis Tuft, is chief of Allergy at Temple University's Hospital in Philadelphia. All physicians are welcome to attend this presentation.

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

Freeman W. Metzer, M.D., Reporter

The regular meeting of the *Burlington County Medical Society* was held on September 8, at the Riverton Country Club, with DR. E. V. DAVIS, president, in the chair.

Dr. Davis turned the meeting over to Dr. Perry MacNeal, chairman of the program committee, who introduced the speaker of the evening, DR. RICHARD FROHNER, of Philadelphia. Dr. Frohner's topic was "Hematology" and he spoke of such recent drugs as folic acid, teropterin, diopterin, B 12, urethane, and nitrogen mustards.

Dr. W. E. Bray was appointed a member of the nominating committee for the county, replacing Dr. Russell Geary who was lost through death this year.

Dr. Luis Viteri, whose family was caught in the earthquake in Ecuador, related his experiences at the scene of the quake. He flew down and rendered valuable aid. He stated that the quake showed what good neighbors could do. He saw and met doctors, nurses, and aides from practically all South American and Central American countries.

Dr. R. Winfield Betts, chairman of the Committee of 21, reported that his chairmen for the five geographical districts were appointed and doctors assigned to each.

CAMDEN COUNTY

L. G. McAfoos, Jr., M.D., Reporter

Under the chairmanship of DR. A. M. K. MALDEIS, its president, the *Camden County Medical Society* held its first meeting of the year on October 4, at the Dispensary Building, Camden.

DR. THOMAS A. NOONE, of Camden, who was elected at the April meeting, was presented to the Society after taking the oath of membership and signing the roll book.

Dr. Walter Crist, the Society's chairman of the Community Chest, introduced MR. PHILLIP E. SCOTT, vice-president and treasurer of the Esterbrook Pen Co., and general chairman of the Camden County Community Chest, who discussed the budget of this year's drive and urged the support of the Society.

The first speaker of the evening was MR. MILLARD E. CUSKADEN, Chief of N. J. State Plan of Disability Benefits, Division of Employment Security, New Jersey Department of Labor, who very aptly discussed many phases of the State Disability Program. The second speaker, C. E. WEIGELE, M.D., New Jersey State Department of Health, assigned to supervision of the Disability Insurance Program, directed his remarks mainly to the terminology of the various diseases and injuries and to the estimated duration of disability they should cause.

Dr. Harold K. Eynon, chairman of the Nominating Committee, stated that Dr. Martin Swiecicki, who had been elected a delegate to the State Society, was already an alternate. The nominating committee submitted the name of DR. JAMES R. EYNON as an alternate to fill this vacancy. He was unanimously elected.

Dr. E. A. Y. Schellenger reported on the Welfare Committee meeting of the State Society in Trenton, October 2. At this meeting Dr. Norton, president of the State Society, urged that the Blue Shield Medical Service Plan be encouraged.

Dr. Arthur G. Pratt, chairman of the City and County Welfare Committee, affirmed that the State Society was anxious to do everything possible to avoid State Medicine. In answer to a questionnaire asking what the various municipalities do for the indigent and relief clients he stated that every municipality provides for this with free choice of physician except Haddonfield, where a doctor is employed for this purpose.

Dr. H. Wesley Jack, chairman of the Cancer Control Committee, announced that the money collected by the Camden County Chapter of the State Division of the County Society was $35,680.56 in 1948, and $33,418.43 in 1949. He mentioned how this money was dispersed and emphasized that fifty cents out of every dollar was diverted to help in the County.

Dr. William T. Read, Jr., chairman of the Blood Bank Committee, stated that the Red Cross Blood Bank Program was under the guidance of the Junior Chamber of Commerce and that bleeding was to start in the near future—the aim being to give sufficient blood to the various municipalities.

Memoirs on the deaths of DR. JOSEPH C. LOVETT and DR. THOMAS K. LEWIS were read by Dr. D. F. Bentley, Jr., and Dr. Henry B. Decker, respectively.

Dr. Maldeis announced that the World Medical Association is soliciting membership. The fee is $10.00 and it is being endorsed by the A.M.A. There being no further business the meeting was duly adjourned.

CUMBERLAND COUNTY

E. C. Greene, M.D., Reporter

DR. ANTHONY PINO, president of the *Cumberland County Medical Society* called the regular meeting to order at Richard's Farm, Bridgeton-Vineland Pike, on October 11.

During the brief business session, committee reports were given and several issues were presented which precipitated considerable discussion.

An announcement was made of *National Diabetes Week* and a plea for the cooperation of the members was expressed. It was noted that Millville Hospital had been holding a Diabetic Clinic every other Sunday for the past twelve years.

Dr. Carl N. Ware opened the scientific session by introducing the speaker, MALCOLM W. MILLER, M.D., associate professor of Clinical Medicine and

chief of Allergy Section, University of Pennsylvania School of Medicine. Dr. Miller's topic, "Allergy from the General Practitioner's Standpoint", was the highlight of the afternoon. His presentation of the subject was not only very well organized but of definite practical value to every physician present.

Dr. Miller stressed the fact that after the allergens had been detected by skin tests, it was practical for the general practitioner to continue with the curative desensitizing treatment; but he went on to advise certain precautionary measures. His statement that 10 per cent of our population exhibits a major allergic condition at least once in a lifetime was significant.

Following the discussion, dinner was served.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The new president, J. Paul Burkett, M.D., presided at the first meeting of the *Gloucester County Medical Society* held at the Woodbury Country Club, September 15. The committee reports were brief except that of Dr. Wendell Burkett, chairman of the legislative committee and the Committee of 21. Dr. Burkett brought us up to date on pending legislation and discussed the contribution each man should make toward furthering our ideas as outlined by the American Medical Association.

Dr. I. N. Patterson, chairman of the program committee, stated that everything was in readiness for our annual social session in October. Dr. Patterson then introduced the speaker of the evening, William Snagg, M.D., of the Medical Staff, Cooper Hospital, Camden, N. J. Dr. Snagg gave a very interesting and enlightening discussion of "The Newer Antibiotics in Medicine". The question and answer period folowing was also quite instructive.

HUNTERDON COUNTY

Henry A. Davidson, M.D., Reporter

The air-conditioned dining room of the Clinton House was an island of comfort in an ocean of swelter on the evening of July 26 when the *Hunterdon County Medical Society* held its regular meeting, with the president, Dr. John Furhmann in the chair. There was a general discussion of the possibility of setting up a round-the-clock emergency medical call service but it was the consensus of the members that in a widely scattered rural county this was impractical, and as an alternative the Businessmen's League of Hunterdon County will be asked to persuade the telephone company to keep in all rural switchboards a list of all the practitioners in the county.

The society adopted a resolution condemning compulsory sickness insurance, thus adding its name to the roster of hundreds of other organizations which have taken their stand in this matter.

Dr. Diomede Guertin, medical director of the New Jersey State Village of Epileptics was the principal speaker. He spoke on modern concepts in the treatment of epilepsy. There was a lively general discussion of the various emotional, forensic, pharmacologic and social aspects of this enigmatic disease.

MONMOUTH COUNTY

Lester A. Barnett, M.D., Reporter

A paper on the care of the cardiac patient undergoing surgery featured the September meeting of the *Monmouth County Medical Society,* held in the auditorium of the Monmouth Memorial Hospital, Long Branch. Dr. Harry R. Brindle, president, opened the first regular meeting of the season and introduced the speaker, Dr. David Scherf, associate professor of Medicine and Cardiologist, New York Medical College, who spoke on "The Poor Risk Surgical Cardiac". A discussion period followed in which many members enthusiastically participated.

The first order of business was a resolution by Dr. Victor Knapp to change the procedure of nominating society officers; this was tabled for action at a later meeting. The Society voted to support the $25,000,000 bond issue for state institutional building purposes, as part of the Mental Welfare program. The next New York University seminar was announced for October 19 at the Fitkin Memorial Hospital, Neptune, the subject to be "Surgical Shock".

On recommendation of the membership committee, the following applicants were elected to associate membership: Dr. Donald W. Bowne of Wanamassa; Dr. Henry J. Vaccaro of Asbury Park; Dr. Harold F. West of Belmar; Drs. Allen M. Nicas and Vincent A. DeRosa of Long Branch; and Drs. George A. Sheehan, Jr., Ensley M. White, Jr., and William C. Ellis of Red Bank. Dr. Frederick Knowles of Sea Girt was elected to courtesy membership.

SALEM COUNTY

J. S. Madara, M.D., Reporter

Under the chairmanship of its new president, Dr. J. Robert Cox, the regular monthly meeting of the *Salem County Medical Society* was held at the DuPont - Penns Grove Club on September 16, at 4:30 p. m. Dr. R. Louis Silverman introduced the distinguished speaker of the day, Dr. William T. Lemmon, clinical professor of Surgery and professor of Applied Anatomy at Jefferson Medical College, who gave an interesting summary of *Continuous Spinal Anesthesia,* illustrated with movies of its use in operations on humans and other animals.

This interesting talk was followed by a short business meeting, which opened with the reading of the minutes by the secretary, Dr. Harry F. Suter, who announced that at the special meeting held in August, Dr. Harry W. Fullerton and Dr. J. A. Hunt were elected to membership in the society. The newly elected officers were also announced: *President,* Dr. J. Robert Cox; *Vice-President,* Dr. August Jonas; *Secretary-Treasurer,* Dr. H. F. Suter; and *Reporter,* Dr. John S. Madara.

The need for continuing the battle against socialized medicine was discussed by Dr. Suter, after which the members adjourned to dinner.

WOMAN'S AUXILIARY

FALL MEETING

Mrs. Thomas H. McGlade, Press and Publicity

The Fall Meeting of the Executive Board of the Woman's Auxiliary to The Medical Society of New Jersey was held on October 10, at the Society Headquarters in Trenton. Mrs. Norman Nathanson, president, presided. Forty-nine members attended.

The minutes of the Post-Convention Board Meeting in June, the treasurer's statement and reports were on the morning agenda.

Dr. Lloyd Hamilton, Advisor from the Medical Society to the Woman's Auxiliary was introduced. Dr. Hamilton stated the Auxiliary program and the legislation program were approved.

Mrs. Harry Subin announced the Convention dates will be May 22, 23 and 24, 1950.

The business meeting continued following the luncheon. After an explanation by Mrs. Oswald Carlander, legislation chairman, of the $25,000,000 Bond Issue, endorsed by the Medical Society, a motion was made and carried that the Auxiliary also endorse the Issue.

The Medical Society of New Jersey awarded a certificate to the public relations committee of the Woman's Auxiliary, of which Mrs. Asher Yaguda was chairman and Mrs. Frederick G. Wandall, co-chairman. This certificate was for a scientific exhibit, of merit, at the 183rd Annual Meeting, April 25 to 28, 1949.

Mrs. John F. Kustrup, president of the Mercer County Auxiliary, invited the Auxiliary members to attend an "Open House" honoring Mrs. R. J. Cottone, president-elect of the State Auxiliary, to be held on Monday, October 17, 1949.

Dr. James F. Norton, president of The Medical Society of New Jersey, was introduced by Mrs. Frank S. Forte, program chairman. Dr. Norton expressed his appreciation of the work done by the Auxiliary members on the One-Ten-Twenty Plan. Discussing the proposed National System of Compulsory Insurance, Dr. Norton stated the essence of liberty is the power of choice. He urged those present to create a demand for a quicker use of our own voluntary Medical-Surgical Plan in every county. A lively question and answer period followed Dr. Norton's talk, which culminated in the passing of a resolution.

AUXILIARY REPORTS

Atlantic County

Mrs. Matthew Molitch, Press and Publicity

Mrs. Louis Rosenberg, newly elected president of the *Woman's Auxiliary to the Atlantic County Medical Society,* entertained the members of her Executive Board at a lovely luncheon on Tuesday, August 9, at the Hotel Strand, Atlantic City. Mrs. David B. Allman, president of the National Auxiliary to the American Medical Association, expressed her gratification of the Executive Board's 100 per cent subscription to the National Bulletin. Serving with Mrs. Rosenberg in 1949-50 will be Mrs. Clarence Whims as President-Elect; Mrs. Matthew Molitch, First Vice-President; Mrs. Rolfe Westney, Second Vice-President; Mrs. Arthur Dintenfass, Treasurer; Miss Gertrude Guion, Recording Secretary, and Mrs. Samuel Halpern, Corresponding Secretary.

The chairmen of the standing committees are as follows: Arrangements, Mrs. Robert Bradley; Bulletin, Mrs. William Hersohn; Post-War Planning, Mrs. Samuel Winn; Hygeia, Mrs. Samuel L. Salasin; Legislation, Mrs. Daniel Reyner; Medical Histories, Mrs. Charles Hyman; Membership, Mrs. E. Browne Holoman; Nominating, Mrs. Harry Subin; Widows and Orphans, Mrs. Martin Green; Ways and Means, Mrs. Edward Dyer; Telephone, Mrs. Baxter Timberlake; Safety, Mrs. E. Harrison Nickman; Public Relations, Mrs. G. Ruffin Stamps; Parliamentarian, Mrs. David B. Allman; Nurses Scholarship, Mrs. James Mason, III; Historian, Mrs. Max Gross; Publicity, Mrs. Matthew Molitch; Cheer, Mrs. Patrick McGeehan; Rural Health, Mrs. Stamps and Mrs. Herbert Axilrod.

Camden County

Mrs. Thomas M. Kain, Jr.,
Chairman, Press and Publicity

The annual legislation meeting of the *Woman's Auxiliary to The Camden County Medical Society* was held October 4, at the Haddon Fortnightly Clubhouse, Haddonfield.

Mrs. Harold K. Eynon, president, introduced the honored guests, Mrs. Norman Nathanson, state

president and Mrs. John Cottone, president-elect.

Mrs. Wilmer F. Burns, legislation chairman, introduced Dr. Edwin R. Ristine who spoke on "Compulsory Health Insurance". Dr. Ristine stressed the fact that we must continue working to prevent socialized medicine and write to our legislators expressing our views.

Committee reports were given during the business meeting. Plans for the Benefit Card Party, which will be held November 1, were discussed. The proceeds from this card party will be used for the Nurse Scholarship Fund.

Mrs. Reuben L. Sharp introduced several wives of the residents from West Jersey and Cooper Hospitals, who were our guests.

After the program was completed Mrs. Leland Stetser and her committee served tea to the group.

Essex County

Mrs. Stuart Zeh Hawkes, Press and Publicity

The public relations committee of the *Woman's Auxiliary to the Essex County Medical Society* presented Health Day at the Academy of Medicine, Newark, on October 5. Mrs. John J. Torppey, chairman of the committee, presided. Mrs. Norman Nathanson, state president, was introduced and greeted the guests. Mrs. Philip Santora, president of the Essex County Auxiliary, added words of greeting.

The program for Health Day was a Round Table Panel on Geriatrics. Dr. Joseph I. Echikson, president of the Essex County Medical Society, was moderator and also discussed "Does Life Begin at Forty?". Dr. Frank S. Forte's subject was "What of Your Digestive Tract?". "What of Your Heart?" was Dr. Jerome G. Kaufman's topic. Dr. Lewis H. Loeser talked on "What of Your Nerves?", and he was followed by Dr. William Nyiri whose subject was "What of Your Glands?" Dr. Benjamin Saslow finished the discussion with "What About Diabetes?"

Following the panel there was a very excellent question and answer period, stimulated by the fine speakers and also by the fact that the questions were submitted in writing to the moderator.

Over 400 guests attended the panel, which was open to the public. Before the program, Mrs. Harrold A. Murray and her committee served a delightful tea to the guests.

Particular credit is due the public relations committee, of which Mrs. Pascal Baiocchi is co-chairman to Mrs. Torppey, for sending out over 400 invitations to P.-T.A. and club groups.

Hudson County

Mrs. Morris Bresev,
Acting Chairman, Press and Publicity

The *Auxiliary to the Hudson County Medical Society* held a regular monthly meeting at Murdoch Hall, Medical Center, Jersey City, on October 3, with Mrs. Sidney Chayes presiding.

An open meeting on legislation will be held November 7 at Murdoch Hall. Invitations have been extended to all organizations to be guests of the Auxiliary. Dr. James Norton, president of The Medical Society of New Jersey, will be the speaker.

Tentative plans were made for a dinner dance to be held in November, with Mrs. William Mulvihill and Mrs. Louis Norwich in charge.

Tea was served by Mrs. Euclid Ghee and Mrs. John Varriano.

BOOK REVIEWS

Advances in Internal Medicine. Volume III, 1949. Editors: William Dock, M.D., and I. Snapper, M.D. Pp. 478. New York, Interscience Publishers, Inc., 1949. ($8.50)

Physicians familiar with previous volumes in this series will know what to expect in this present one. They will find the contributions authoritative, comprehensive and coherent. The problem of keeping them up to date has not been completely resolved, particularly in the sections on penicillin by Eagle and on streptomycin by Hinshaw and Feldman.

Here will be found contributions by Ester and Dameshek on hemolytic anemias, by Pinkerton on histoplasmosis, by Janeway on plasma fractionation, and by Astwood on antithyroid compounds. The section by Merritt on modern therapeutic agents in neurologic conditions displays a didactic quality more suited to the textbook.

Sections on diagnosis of disease by enzymatic methods, B.A.L. and heat acclimatization complete the selection of articles. This book well fills the gap between the current periodical and the medical monograph.

I. J. Bernstein, M.D.

Blakiston's New Gould Medical Dictionary. Edited by H. W. Jones, M.D., N. L. Hoerr, M.D., and Arthur Osol, Ph.D. Pp. 1294. Blakiston. Philadelphia. ($8.50) (Thin paper $10.75)

While all standard medical dictionaries have published frequent revisions, this volume is obviously not the old "Gould" but a brand new book. The system of indicating pronunciation is novel and easy to understand. A medical atlas bound into the center of the volume is almost worth the price of the whole book. Like most medical dictionaries it contains tables of arteries, vitamins, bones, nerves, etc.; but unlike other books, these special tables are assembled in a single section for ready reference. The text covers not only medicine in all its branches and specialties, but also embraces medical physics, pharmacy, veterinary practice, biochemistry, botany, dentistry and medico-legal terms. Hundreds of new words are included, and the dictionary is lexicographically as up-to-date as its publication day—August 1, 1949. The definitions are newly written, compact, vivid and accurate. It is a satisfyingly chunky volume to have on the office desk and an essential reference tool for the medical teacher or medical writer.

Henry A. Davidson, M.D.

Public Health in the World Today. Ed. by James Stevens Simmons, Dean, Harvard School of Public Health, assistant ed., Irene M. Kinsey. With a foreword by James Bryant Conant, President of Harvard University. Pp. 332. Cambridge, Mass., Harvard Univ. Press, 1949. ($5.00)

The book represents a collection of the papers presented at the conferences at the Harvard School of Public Health "to develop a clearer picture of the evolution, scope, and objectives of the profession of public health, to focus attention on today's complex problems in the fields of national and international health, and to stimulate realistic thinking about the solution of these problems". It made fascinating reading for the reviewer and will do so for the expert in public health, and for every physician, social worker or layman interested in the national public health picture or the world health situation.

The chapters, enriched by excellent tables, are written by outstanding specialists. Historic reviews of the development of public health institutions are given, their achievements and responsibilities described and future development of those services for the United States and the entire world programmatically visualized. The necessity of such planning is explained and stressed. Even the latest public health problems arising from and connected with the atomic developments are described in an interesting chapter. The publication of these papers will promote and stimulate interest in international public health. The volume is a programmatic markstone for all future endeavors in the field both in this country and on a world wide scale.

OTTO B. HITSCHMANN, M.D., Newark

Oral and Dental Diagnosis. Kurt Thoma, D.M.D. 3d edition. Pp. 563. Philadelphia, W. B. Saunders Company, 1949. ($9.50)

This text offers a comprehensive coverage of dental and oral medicine with the essential diagnostic features of each disease well described and illustrated. One innovation in this third edition is the inclusion of essential methods of treatment appropriate to each condition.

Especially noteworthy is Dr. Thoma's discussion of tumors of the lips, tongue and oral mucosa. As with all volumes which attempt to compress every disease into a single book, there are some disorders for which only the barest essentials are mentioned. However, the author does furnish us with an excellent bibliography so that the serious reader will know where to look for further material on subjects only sketchily covered here.

Dr. Thoma is well in step with modern nomenclature, developments and discoveries. Thus, he discusses radiation necrosis in relation to dental operations, presenting this up-to-date subject in an up-to-date manner. Henry Goldman, D.M.D., made signal contributions to the chapter on periodontal diseases, and this is properly acknowledged.

S. STEPHEN RAFEL, D.M.D.

Medicine of the Year, First Issue, 1949. Ed. by John B. Youmans, M.D. Pp. 143. Phila., J. B. Lippincott Co., 1949. ($5.00)

An impressive array of contributors here offers in abbreviated form the progress made in 1948 in 21 fields of medicine and surgery. This ambitious project is squeezed into 143 pages. Each topic within a given field is treated with such brevity that little more than a bird's eye view can be obtained, e. g. neurology is covered in four pages, dermatology in four pages, etc. The three essays in the endocrinology section can be read with some profit; they are allotted somewhat greater space than the myriad of other topics reviewed. Contributors' names are listed only in the front, making it difficult to determine easily who wrote each section; a hasty glance at the cover gives the impression that this book covers medicine for the year 1949, whereas a closer look reveals the words "first issue" printed in smaller, lighter letters above the date.

The purpose of this presentation is difficult to discern. The contributors have not attempted a critical review of medical progress, nor have they striven for completeness in any particular topic. In many instances the reader is referred to outside sources for details (especially in therapy) thus minimizing the practical value of the book. The process of condensation has been carried to such an extreme that its value may be doubted.

ROLAND D. GOODMAN, 2nd, M.D.

A Textbook of Neuropathology; with Clinical, Anatomical and Technical Supplements. By Ben W. Lichtenstein, M.D. Pp. 474. Philadelphia, W. B. Saunders Company, 1949. ($9.50)

Within the last decade a number of textbooks on neuropathology have been published. There has been considerable variation in the quality of these volumes. In general, they are characterized by unevenness of content, some chapters being particularly good and others less successful.

This particular textbook impresses the reviewer as being of uniformly good quality. While none of the chapters is brilliant, the general standard is high and there are no sections which could be called of poor quality. In general, more attention has been paid to clinical aspects of neurology than is customary in a neuropathology text. The correlation of pathologic findings and clinical symptoms is well-worked out and the result would certainly be approved by the neuropsychiatrist. The illustrations are carefully prepared and demonstrate well the relevant points. The use of arrows and of lettering superimposed upon illustrations is helpful to the clinician whose background of neuropathology is minimal. At the end of each chapter the author has arranged complete and valuable references. The book is recommended for the student and practitioner of neuropsychiatry.

LEWIS H. LOESER, M.D.

Book Reviews continue on next page.

Uses of Penicillin and Streptomycin. By Chester Scott Keefer, M.D. Pp. 72. Lawrence, Kansas, (Porter Lectures, Series 15). University of Kansas Press, 1949. ($2.00)

In this booklet Keefer summarizes the uses of penicillin and streptomycin. The text is clearly and concisely written and can easily be read in one sitting. It is logically presented and affords an excellent view of the subject. The uses of aureomycin, bacitracin and the newer antibiotics are not discussed.

Joseph E. Mast, M.D.

Medical Etymology. By O. H. Perry Pepper, M.D. 263 pp. Philadelphia, W. B. Saunders Company, 1949. ($5.50)

This short compendium of the basic roots the medical student will encounter is aimed at the new arrival in the bewildering world of Latin and Greek words in science. Student dentists, nurses and doctors will find a useful harvest of explanatory text in the 4000 terms described.

There are divisions into preclinical, clinical and dental subjects and sub-divisions into specialties so that ease in handling is enhanced.

Since Latin and Greek are esoteric fields to ninety nine out of one hundred students, this series of derivations should serve as a guide to the scientific word world so full of terms made up or derived from these two languages.

The book is clearly printed on good glossy paper. There are easily visualized descriptions and the text is recommended to students in the fields of nursing, medicine and dentistry.

Irving Shapiro, M.D., Newark.

Psychosomatic Medicine; the Clinical Application of Psychopathology to General Medical Problems. By Edward Weiss, M.D., and O. Spurgeon English, M.D. 2d ed. Pp. 803. Philadelphia, W. B. Saunders Company, 1949. ($9.50)

The original edition (1943), in addition to imparting information about the psychologic aspects of disease, attempted to turn the minds of organically trained practitioners toward more psychologically determined channels. The attempt was apparently successful to the extent that doctors accepted the "psychosomatic aspect" as being unavoidably and, perhaps, even painfully, present in any given case. Whether this point of view has been integrated into its proper place in everyday diagnosis and treatment is debatable. The second edition performs a timely service by re-emphasizing the need to apply the psychosomatic equally with the organic approach. In carrying out its mission the book retains its old hortatory tone and a subtle verbal pointing of the finger which many of us guilty of illogical, thoughtless medicine (or of ignoring the personality of the patient) will not find to our liking. The effect of such diagnoses as "low blood pressure", "anemia", "hypothyroidism", "colitis", "heart murmur", etc., etc., in the production of chronic invalidism is again well illustrated and reinforced by the citation of new cases.

This edition mirrors the newer contributions up to 1947, especially those of W. C. Menninger, Wolff, *et al.*, all of whom receive extensive quotation. The effect of Fenichel's work is also apparent, as in the change to a more dynamic definition of anxiety (p. 23): "anxiety is a specific, unpleasurable state of tension which indicates the presence of some danger to the organism." The increased importance of the social worker and of group therapy receives due recognition. The work of Selye on the adaptation syndrome is briefly noted.

Despite the many changes, the book preserves its original personality and remains an invaluable text for anyone interested in practicing modern efficient medicine. It should be a standard and well-worn part of every doctor's library.

Morton M. Stern, M.D., (Newark)

Nutrition and Diet in Health and Disease. By James S. McLester, M.D. Fifth edition. Pp. 800, Philadelphia, W. B. Saunders Company, 1949. ($9.00)

The McLester of 1949 deviates little in original intent from the McLester of 1927. It was used then as a guide for all students interested in nutrition and diet, in health and disease. It is even more useful today as a guide to the general practitioner and to every specialist in any field of medicine. This all-inclusive text is interesting to read because all the advances in the many fields of nutrition, both in the laboratory and in the clinic, have been compiled and recorded.

Nutrition has out-grown its infancy since the second world war. The present edition finds many sections rewritten; it embodies the latest information and advances in nutrition.

McLester is of special appeal to any doctor interested in the every day problems of his patient.

S. William Kalb, M.D.

Living Wisely and Well. By William B. Terhune, M.D., Douglas A. Thom, M.D., Kenneth E. Appel, M.D., and Winfred Overholser, M.D. Pp. 95. New York, E. P. Dutton & Co., Inc., 1949. ($2.00)

Everyone needs mental hygiene. For the lack of it, human personality remains the greatest undeveloped resource in the world. Four essays—counting the editor's preface, itself, as an essay—aimed at the lay public comprise some 82 pages of readable material in a volume which presents the series of lectures on mental hygiene offered in the spring of 1948 to the public by the Silver Hill Foundation, New Canaan, Connecticut. These essays contribute greatly to the thesis expressed and form an excellent introduction to the study of both public and personal mental hygiene. Each of the three lecturers, a specialist, is interested in the preventive aspects of psychiatry and in these essays they attempt a sincere evaluation of the fundamental problems of childhood, young adult life, later maturity and old age.

Harold M. Goettel, Newark.

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **November, 1949** **No. 11**

THERE is a great need for a trustworthy set of rules to protect the people in contact with tuberculous patients and an even greater need for a more general application of existing methods in sanatoriums, in hospitals, and in homes.

A CRITICAL ANALYSIS OF ASEPTIC TECHNIC FOR TUBERCULOSIS

The Essentials of Asepsis

"Aseptic technic" is a routine for protecting the contacts of tuberculous patients. It consists of a number of logical methods to prevent the spread of infection which are applied to the patient, to his contacts, and to his environment. It involves facilities for isolation, placement of the patient, and care of the patient. According to the circumstances, the routine may be limited to a few obvious essentials, or include a complete list of all possible methods.

The usual source of infectious material is the respiratory tract. Contamination may occur in three ways—*direct*, by contact with the patient; *indirect*, by the handling of contaminated materials, and *air-borne*. The newer analyses of airborne transmissions have shown that bacilli may travel by: *droplets*, larger than 0.2 mm, which quickly clear from the air by gravity; *droplet nuclei*, less than 0.1 mm, which quickly evaporate, continue to float, and are a dangerous cause of infection; and *dust* which may contain dried droplets.

Isolation technic is not the only means for control of tuberculosis in general hospitals. Other approaches include routine chest X-ray examinations of all patients and personnel to uncover all active cases of tuberculosis and the provision of facilities for the care and isolation of cases of tuberculosis when found.

Principles of Protection

The ways to avoid contamination are to reduce the number of bacilli expelled by the patient, to reduce contact between attendants and patients, and to apply a routine of aseptic precaution. One must plan to: immobilize the bacilli near their source, collect the secretions, protect the contacts, and cleanse the environment by appropriate means.

Education and training must reach not only the patient and his visitors but the staff and all employed personnel in the hospital whose duties bring them into contact with the patient or with material contaminated by his secretions. A detailed routine must be arranged for their care and protection, and carried out without deviation.

Excessive Hazards

There are a number of places in a precautionary routine where the hazard of contamination or the chance of non-observance is greater than others. In part these hazards are due to the nature of illness, but in part to human failings. They include: lapses in self-care by the patient, personnel, or visitors, and the uncovered cough, sneezing, laughing, talking, and throat-clearing.

Some of the hazards are relatively unimportant, but a few of them represent notable *flaws or weak spots*. The *habits of the patient* are probably the most important factor in an aseptic routine. The patient must understand the theory of contamination; he must be willing to help; he is responsible for catching the bacilli near their source and disposing of them; he must practice the methods until habits are formed; and the habits must be constant and invariable.

The *respiratory tract of persons in contact with*

the patient must be considered exceptionally vulnerable. Since attendants must care for the patient and also must breathe, the entry of bacilli should be prevented by all possible means. The correct wearing of masks, and their construction and composition, are of utmost importance.

The uncertain value of several antiseptics and methods is a weak spot in the technic. Among the antiseptics only the alcohols, cresols, and formaldehyde have any appreciable effect on the tubercle bacillus, and only the first two are practical. The value of cresol compounds is at present a matter of dispute. They are being tested by modern methods in order to determine their efficiency and limitations.

Whether soap is simply an aid to ablution or is bacteriostatic is not known. Detergents (including soap) are used for cleaning of rooms, yet they are not considered to be antiseptic for tubercle bacilli by authorities. Hand-washing is a standby in aseptic technic. In the washing of clothes, soap acts only as a remover of dirt. Sterilization depends upon the recurrent exposure of white clothes to temperatures above 140° F. for a total of at least 30 to 40 minutes. This formula is generally used in standard laundry practice.

Vacuum cleaners have recently been suggested for cleaning rooms containing tuberculous patients but have not been sufficiently tested for efficiency.

Face masks have not been completely studied. They have two uses—for the patient and for the person in contact. Masking of those in intimate contact with patients is necessary, especially when they are grossly infectious, liable to cough, or careless.

The disinfecting value of ultra-violet is in dispute, chiefly due to the variation in sources, intensities, and the quality of contaminated surfaces.

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Several methods and materials have only recently been proved valuable and put into use. The use of oil to reduce the dust, and the use of alcohol as a skin antiseptic are the most notable. Certain "odorless cresols" (which actually are phenols) have shown promise and are being tested.

Summary and Conclusions

The majority of protective methods and materials are good. They are logical, efficient, and can be easily applied. There are several valuable new procedures. A limited and incomplete application is the greatest deficiency which has been noted. A correction should not wait until perfection of the precautions; it should be made now, in every hospital and sanatorium, and pushed to wide usage in the care of patients at home.

A Critical Analysis of Aseptic Technic for Tuberculosis, William H. Oatway, Jr., M.D., Arizona Medicine, May, 1949.

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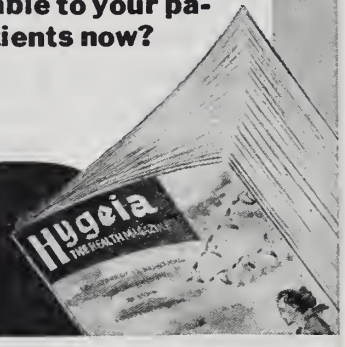
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Krantz, J. C., Jr., and Carr, C. J.:
Pharmacologic Principles of Medical Practice,
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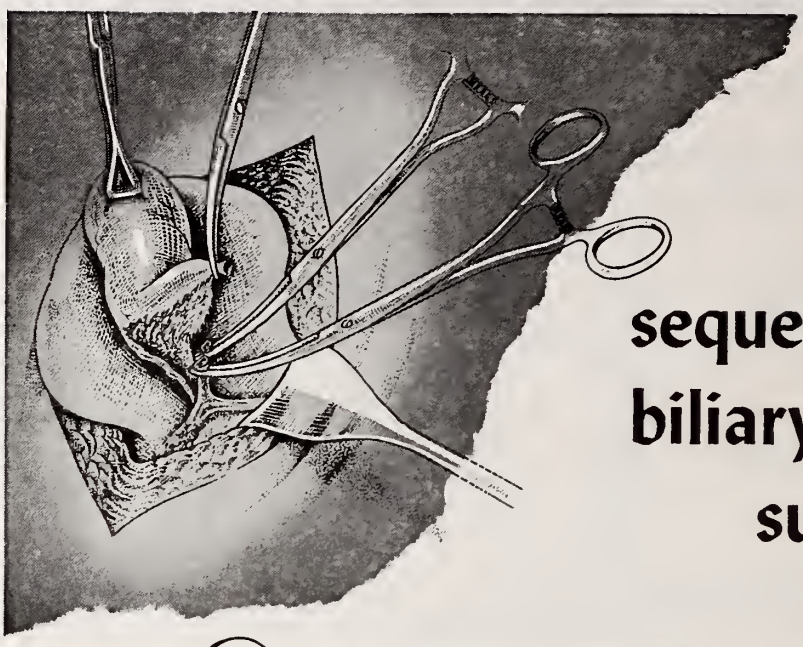


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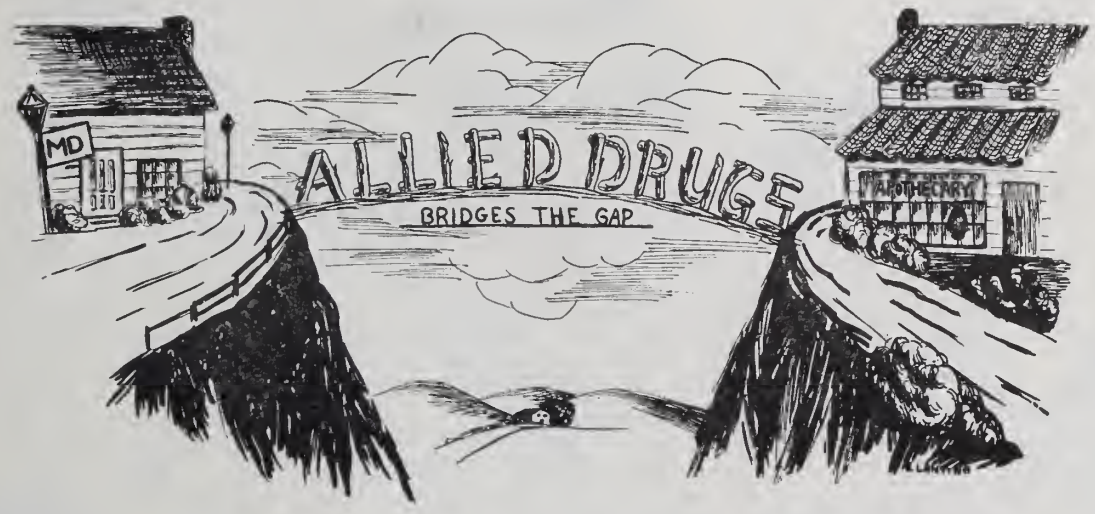
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1. Best, R. R.: Ann. Surg. *128*: 348 (Sept.) 1948.

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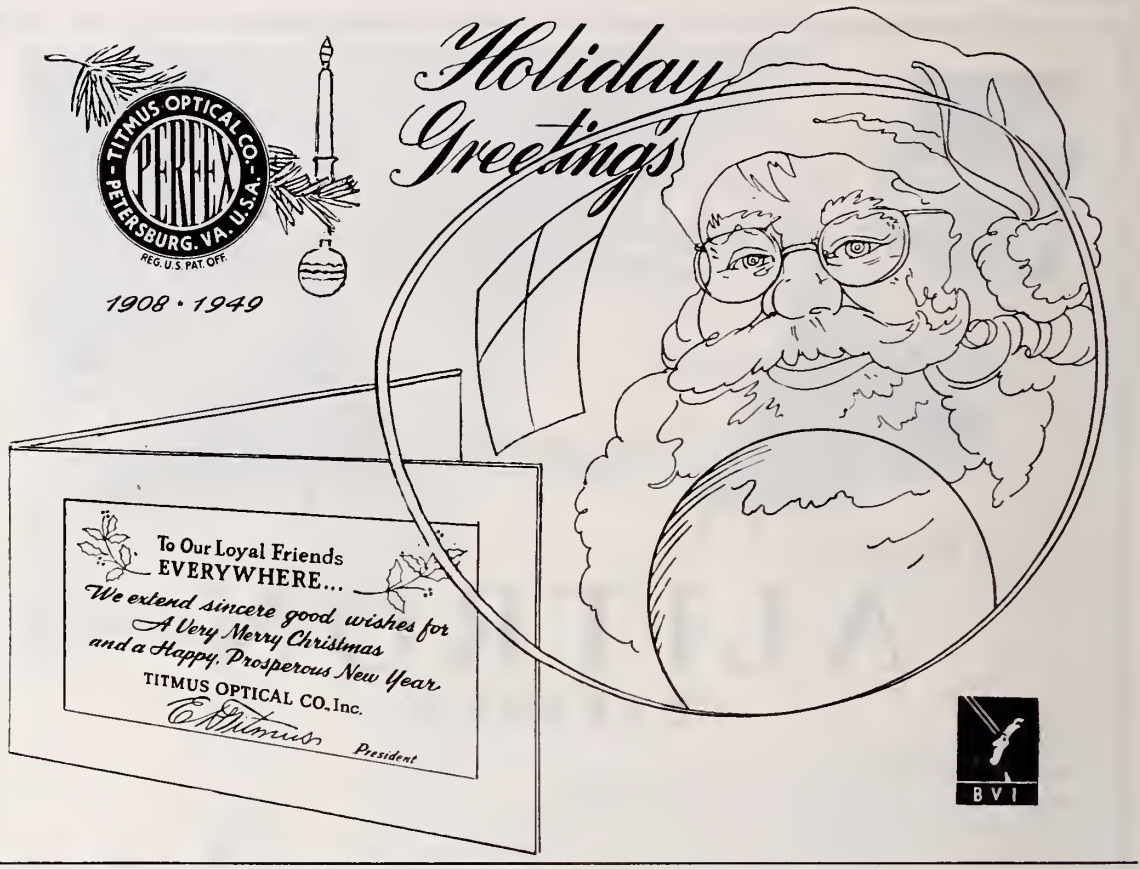
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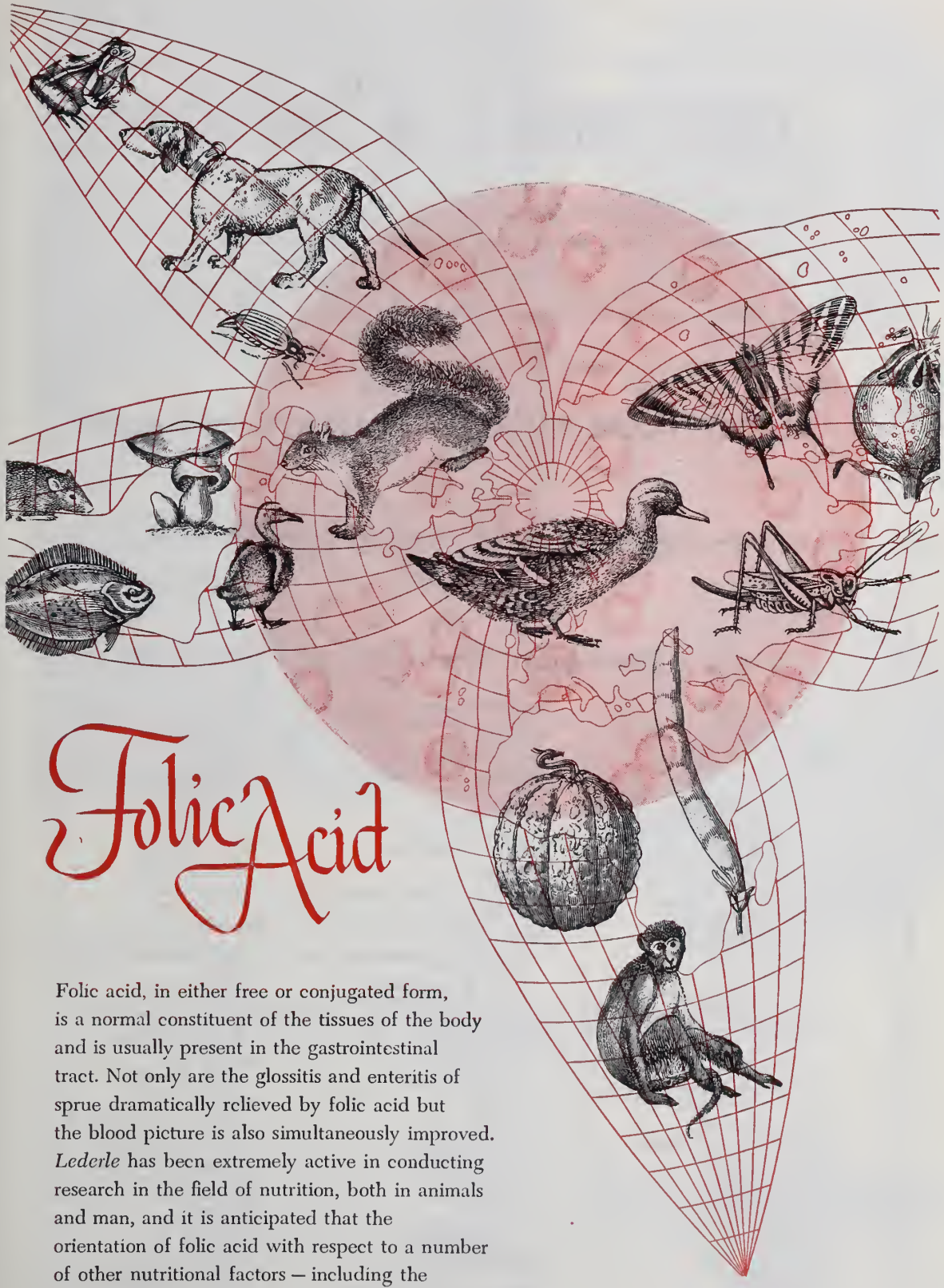
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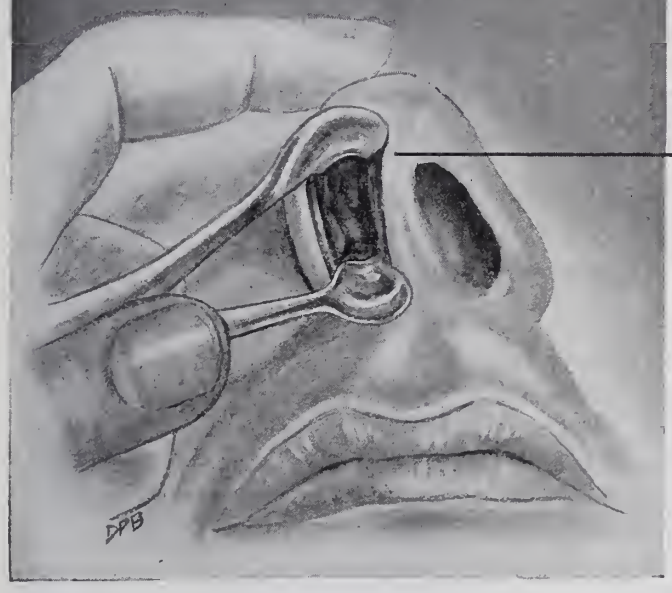
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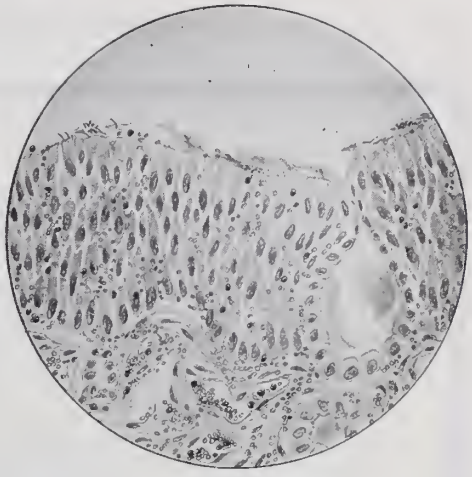
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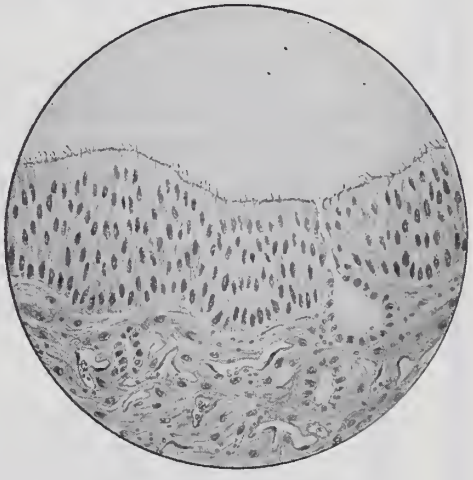
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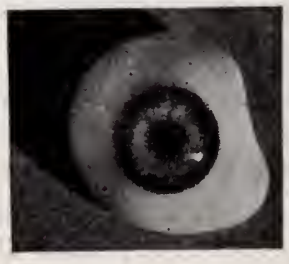
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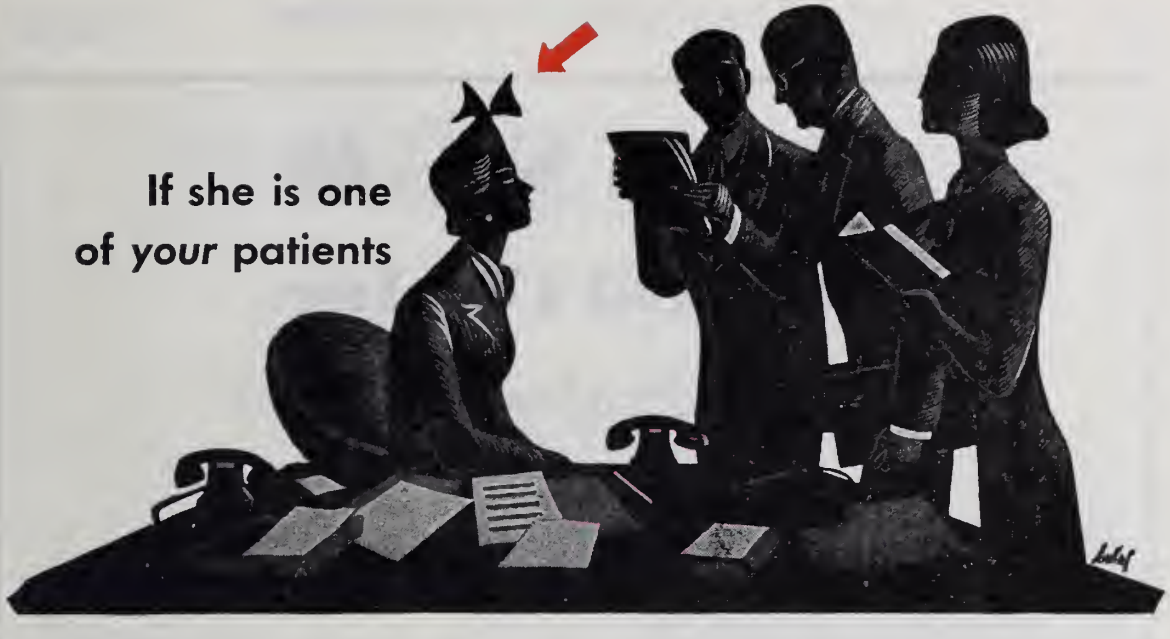


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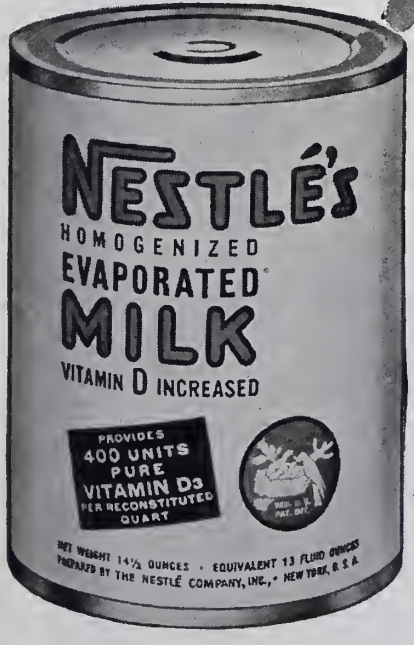
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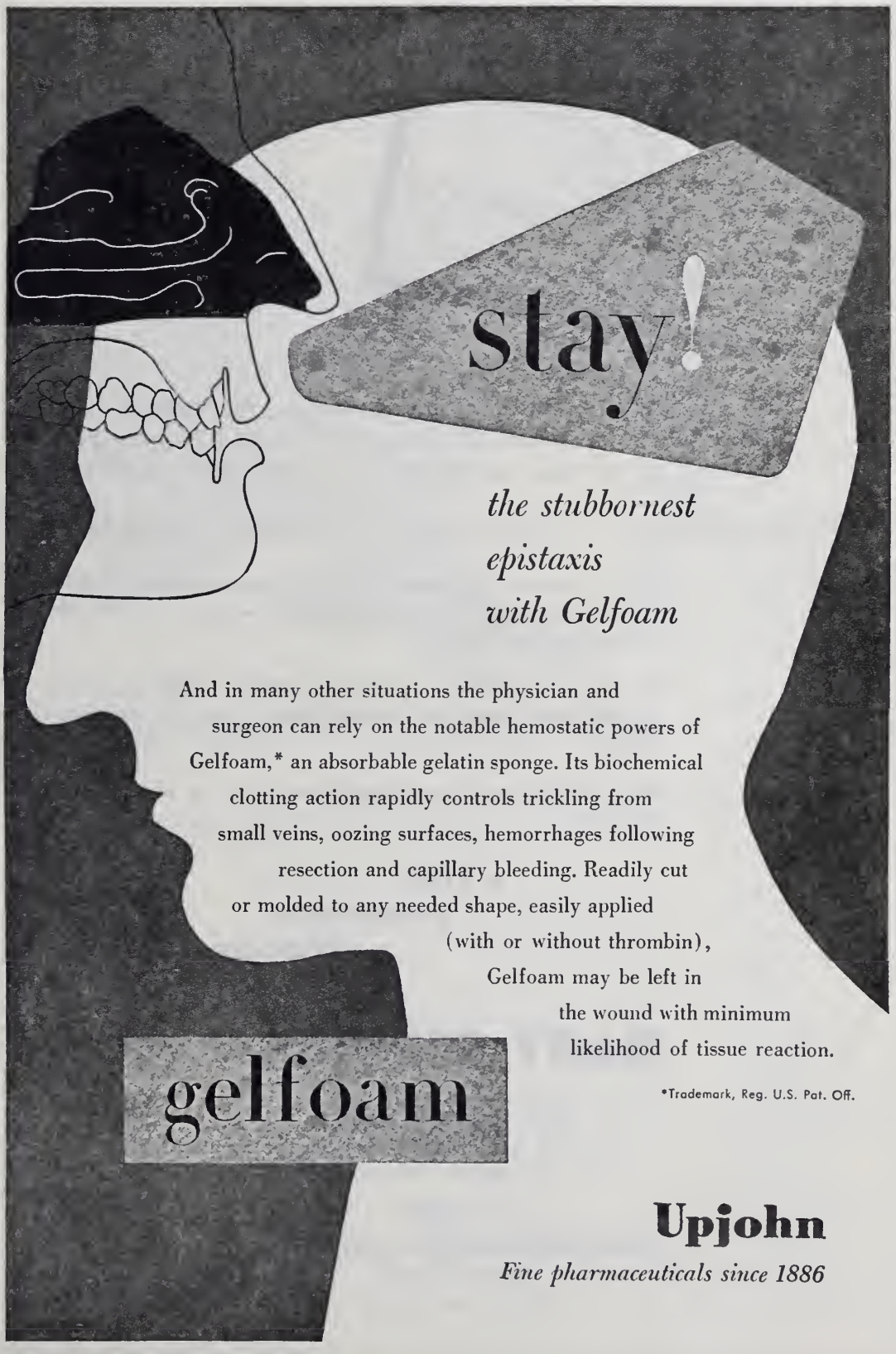
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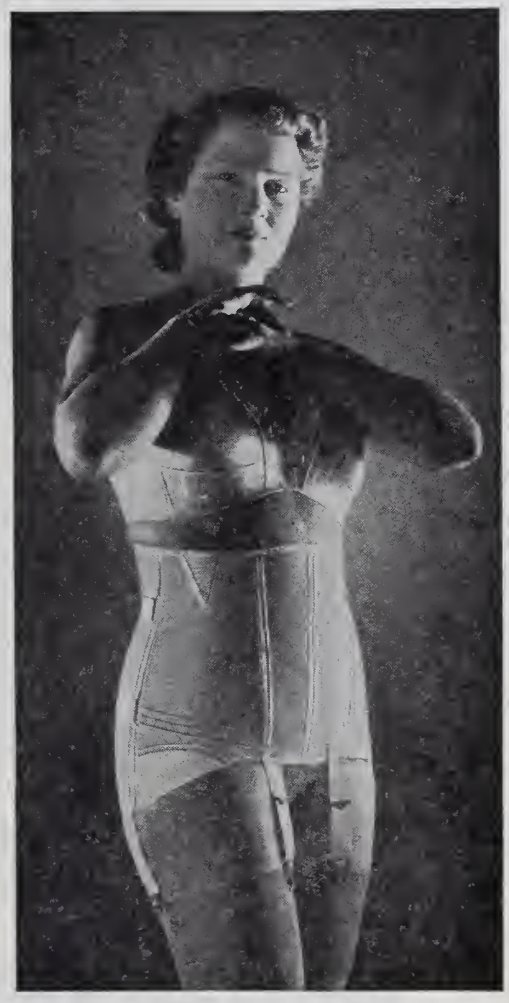
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The alveolar carbon dioxide tension showed a 5 to 10 per cent rise during baths in the carbon dioxide water, and returned to the resting level about twenty minutes after the bath. There was no significant change during baths in plain water.

There was no essential difference in the skin temperature during the carbon dioxide and plain water baths.

There was a marked increase in the elimination of carbon dioxide in the expired air during the time the patient was in the mineral water bath. This increase did not occur in the plain water bath.

No evident variation in the oxygen consumption occurred with either bath.

The possible source of the excess carbon dioxide is discussed. The evidence supports the theory that this extra carbon dioxide is obtained by absorption of the carbon dioxide in the water through the skin and its subsequent elimination through the lungs.

It is, therefore, concluded that the results obtained in the treatment of patients with carbon dioxide mineral water baths depend, in part, at least, on the absorption of carbon dioxide through the skin and its subsequent influence on the circulation and nervous system which occurs in the process of its natural elimination by way of the blood stream and the lungs.

As printed in American Heart Journal, Vol. 29, No. 1, Pages 44-61, January, 1945.



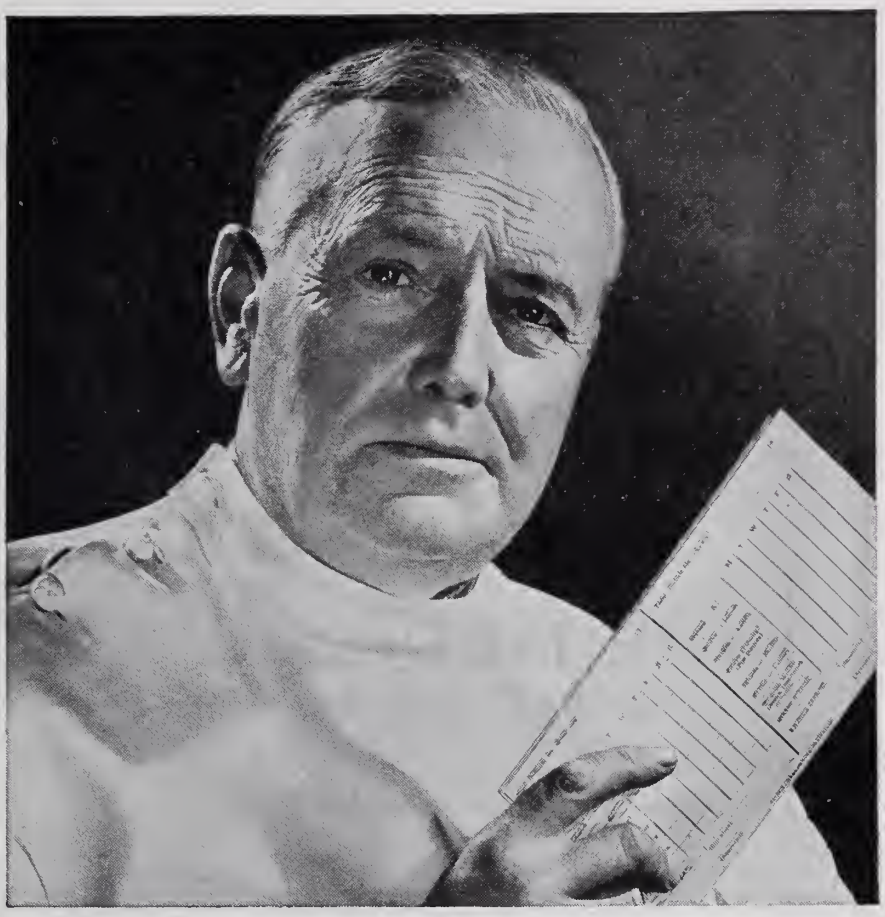
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National Research Council Allowances, Sedentary Man (154 lbs.)	2,400	70	1.0	1.2	12	1.5	5,000	1.2	1.8	12	75	Small Amount
Ovaltine in Milk, 3 Servings *	676	32	1.12	0.5	12	0.94	3,000	1.16	2.0	8.5	30	417
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Liver-stomach concentrate was discovered and evaluated in the Lilly Research Laboratories. It was given the trade-mark name 'Extralin' (Liver-Stomach Concentrate, Lilly). To this date it stands out as a most effective oral treatment for pernicious anemia. Twelve Pulvules 'Extralin' per day will produce a standard reticulocyte response in previously untreated cases in relapse. The same dose will maintain the blood picture of the average uncomplicated case at normal levels. Neurological involvement is prevented. When neural symptoms are present, progression is promptly arrested. For cases in which oral antipernicious-anemia therapy is indicated, specify Pulvules 'Extralin.' 'Extralin' may be prescribed alone or as a supplement to injectable liver extract.

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THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

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THE A.M.A. ASSESSMENT

Eight out of every ten members have fulfilled all their financial obligations to their county societies. Two out of ten have failed to pay the special A.M.A. assessment. Possibly a few members find the twenty-five dollars a serious financial burden. Most of the assessment delinquencies however arise out of a quixotic perversity, based on one of two lines of reasoning:

(a) The money raised through assessment is to be used to inform the public about the merits of the present system of distributing medical care. I am in favor of compulsory health insurance. Therefore, I will not give money which will be used to present a viewpoint with which I disagree; or

(b) Medical societies should be scientific forums, not political movements; this assessment will be used to present to the public a point of view on what is, in part, a political question. I refuse to contribute any money to a political campaign in any shape or form whatsoever.

Those who adhere to either of these contentions are, no doubt, sincere in their convictions. Indeed, their willingness to be conspicuously different from 80 per cent of their colleagues is, in itself, evidence of their good faith. However, the line of thought which leads to these conclusions is, to say the least, somewhat fuzzy. Consider point (a) above. It is no secret that every state medical society in the country is opposed to compulsory health insurance. This remains true whether an assessment is imposed or not; whether you pay the assessment or not. Now a doctor who favors compulsory health insurance, knows full well when he applies for membership, that he is ask-

ing to be admitted to an organization which, by and large, does not share his viewpoint on this question. He knows that whenever his medical society says anything on this subject, it is going to take a position contrary to his own. If he joins the organization knowing all this, it seems a bit illogical for him to say "I will pay my regular dues, which will be used for all the work of the society, but I will not pay this particular increment on my dues, which will be used for the same kind of program". If his logic were as good as his sincerity, he should not pay any dues at all. In fact, he should be unwilling to have himself identified as a member of an organization which takes such an uncongenial viewpoint. But having applied for membership, having paid year after year the regular dues, he is scarcely consistent in suddenly drawing an imaginary line and saying: this far I will go—but no further. If an officer of a county or state society travels to a distant city to deliver a lecture favorable to present medical care distribution, his expenses are paid by the society—which means that this lecture is financed from the regular treasury, to which this doctor has uncomplainingly contributed in his regular dues. It is hard to see how the rebellious member can, in clear conscience, contribute to that, yet be unwilling to make an additional contribution which will be used for precisely the same kind of activity, albeit on a larger scale.

The second hypothesis is no more logical. The idea that a medical society is to be a scientific forum only, that it is not to furnish a platform for the discussion of economic questions is, to say the least, unrealistic. We do have academies of medicine, hospital clinical societies, and specialty organizations which are set up for purely scientific discussions. But from the beginning, medical societies have concerned themselves with the ethical, economic and legal status of their members. No doctor is so naive as to have joined his county medical society without knowing that it had an interest in the economic problems of medical practice. We wonder if the doctor who rebels at paying the assessment will also refuse the lower-cost malpractice insurance policy which his membership makes possible? Here is economic benefit arising out of membership.

The issue, actually, is not too complicated. Most of the members of our state society are in favor of the current educational campaign. If you believe in democracy, you accept with good grace the decision of the majority. You exercise your right to oppose the action so long as the question is open for discussion, within the framework of the organization. But if you elect to remain a member, you go along with the majority. You do not try to sabotage the majority decision by arguing that they are all out of step but me. You do not breach the walls of organizational loyalty by appealing to any outside interest over the heads of your fellow-members. You do not say that if you can't have it your way, you won't play ball. You say, rather, that you have voluntarily associated yourself with your colleagues in this society; that by a democratic process they have decided on a course of action; and that good citizenship as well as good sportsmanship requires that you go along with the majority decision. It is the acceptance of an impalatable majority decision which is the real test of faith in democracy.

ORIGINAL ARTICLES

NEEDLE BIOPSY OF THE LIVER
A CRITICAL EVALUATION

Thomas J. White, M.D., Carroll M. Leevy, M.D., Norval F. Kemp, M.D., Angelo M. Gnassi, M.D., and H. Preston Price, M.D., Jersey City, N. J.

Needle biopsy of the liver was first performed in 1895. However, little attention was directed to this procedure until it was popularized during recent years.[1] In evaluating this procedure, 310 biopsies of the liver performed in the Jersey City Medical Center between September 1947 and February 1949 have been reviewed. One hundred additional needle biopsies have been performed at the time of postmortem examination for comparison with routine autopsy sections.

TECHNIC

We have used the "Vim" Silverman needle for our biopsies with the following technic:

1. *Preparation of Patient:* The biopsies are performed at the bedside without premedication. Analgesics are avoided so that the patient can register all sensation of pain not controlled by local anesthesia. In the presence of ascites, a paracentesis is done before biopsy. Hemorrhagic tendency is assayed with prothrombin, clotting and bleeding times. Correction of bleeding tendencies is made with Vitamin K and, or transfusion before attempting the biopsy.

2. *Site of biopsy:* The size and position of the liver (as ascertained by palpation and percussion) determine the site of biopsy. Enlarged kidneys and abdominal tumors are differentiated from the liver by clinical and roentgenologic examination. The subcostal approach is used with a palpably enlarged liver. The area between the xipho-sternum and the right costal margin is used in patients with slightly enlarged livers. If the liver is normal sized or small, the needle is inserted between the ribs in either the anterior or posterior axillary line depending upon the habitus of the patient. We have performed 180 biopsies subcostally and 130 intercostally.

3. *Procedure:* Sterile precautions are employed including preparation of the skin with iodine and alcohol and the use of sterile sheets and gloves. The skin, subcutaneous tissue, muscle, and peritoneum are anesthetized with 1 per cent procaine solution. A 3 millimeter skin incision is made with a Bard Parker blade and the biopsy needle is introduced to just inside the capsule of the liver. The stylet of the Silverman needle is removed and the split inner needle inserted to its full depth. The outer needle is advanced over the inner one with rotary motion, holding the latter stationary. Finally, the inner needle is turned and both needles are withdrawn simultaneously. Keeping the biopsy close to the surface of the liver decreases danger of excessive hemorrhage as the major vessels are not likely to be in this area.

In the intercostal approach patients are permitted to breathe quietly during the procedure to avoid marked motion of the needle in those unable to hold their breath in expiration. Slower and more meticulous manipulation of the needle is possible with this technic, thereby increasing safety and the number of successful biopsies. As in the subcostal approach the needle moves with respiration and transfixation of the needle between the ribs does not occur. Danger of liver tears from this approach is thus obviated.

4. *Tissue fixation:* We have routinely employed 10 per cent formalin as a fixative and stained the paraffin sections with hematoxylin and eosin. In special studies on diabetic livers absolute alcohol has been used as a fixative and Best's carmine stain applied. For histochemical study of fat, amyloid, iron or connective tissue, the special stains available for these substances are used.

HISTOLOGIC DIAGNOSIS

The specimen obtained is usually adequate for diagnosis, being 10 to 20 millimeters in length and 2 millimeters wide. Occasionally the tissue is distorted from compression or shredding during the procedure. Antemortem biopsy material appears different from postmortem histology[2] due to absence of the cytoplasmic changes and opened perisinusoidal tissue spaces which occurs with death. The pathologic diagnoses made on needle biopsy in our series are listed in table 1. A diagnosis of portal cirrhosis (diffuse hepatic fibrosis) is based upon the presence of periportal fibrosis with bile duct proliferation and pseudolobulation, with or without fatty or lymphocytic infiltration. A diagnosis of multiple nodular

From the Departments of Medicine and Pathology, Jersey City Medical Center. Presented at the 183rd Annual Meeting of The Medical Society of New Jersey, April 25, 1949, by Dr. Leevy.

hyperplasia (post necrotic scarring) is based on non-reactive fibrosis, demonstration of the skeleton of a preexisting lobule and proliferation of bile canaliculi. Infectious hepatitis is diagnosed by disorganization of the lobular pattern, focal intralobular and periportal collections of inflammatory cells and active regeneration of the liver cells with and without acidophilic coagulative necrosis.[3] A diagnosis of biliary stasis is based on the presence of bile in the bile canaliculi, and of fatty liver on the appearance of fat globules in the liver cells. The diagnoses of metastatic carcinoma, lymphoblastoma and amyloidosis are based upon the usual pathologic criteria. Fatty changes were graded as 1 plus when fat globules occupied less than 10 per cent of the section; 2 plus when they occupied between 10 and 30 per cent of the section, 3 plus with 30 to 80 per cent of the section occupied, and 4 plus when more than 80 per cent was occupied.

Table I
PATHOLOGIC DIAGNOSIS ON NEEDLE BIOPSY SECTIONS

Portal Cirrhosis	121
Fatty Liver	40
Carcinoma, Metastatic	18
Biliary Stasis	9
Infectious Hepatitis	4
Lymphoblastoma	4
Multiple Nodular Hyperplasia	3
Amyloidosis	1

LIMITATIONS

The limitations[4] of this procedure are well recognized. Only a small subcapsular portion of the liver is obtained and with localized anatomic abnormalities such as metastatic malignancy, focal necrosis, or fibrosis, the needle may not enter the involved area. The biopsy specimen may consist mostly of capsule and be misinterpreted as showing liver fibrosis. A microscopic diagnosis of passive congestion has not been possible in 16 antemortem biopsy specimens from patients with hepatomegaly due to congestion, although this diagnosis was made on postmortem needle biopsies.

Of the 100 biopsies performed postmortem, blind section reading led to the same diagnosis in the needle section and paraffin section in 93 per cent. Biopsy sections did not reveal hepatic metastases which were present in 7 patients without liver enlargement.

CONTRAINDICATIONS

Abnormalities in blood coagulation, suspected liver abscess, sepsis, acute heart failure and severe debilitation have been considered contraindications. Some authors[5] limit the procedure to patients with enlarged livers. However, use of the intercostal and xiphosternal approaches keeps liver size *per se* from being a contraindication.

INDICATIONS

We have used needle biopsy for diagnostic study in 82 instances; to confirm a diagnosis or evaluate therapy in 105 instances; and for investigative work in 123 instances as shown in Table 2.

Table II
INDICATIONS FOR NEEDLE BIOPSY OF THE LIVER

	No. Cases
Diagnostic Study	82
Hepatomegaly where specific etiology not determined after appropriate laboratory and clinical studies	48
Suspected malignancy	21
Differential diagnosis of intra- and extrahepatic obstructive jaundice	13
Objective Confirmation of Diagnosis and Determination of Indicated Therapy or Evaluation of Response to Therapy	105
Clinical Investigation	123
Liver dysfunction in heart disease	46
Liver dysfunction in diabetes	39
Abnormal liver function tests without clinical evidence of liver disease	14
Evaluation of treatment of fatty liver	34
Controls, glycogen studies, etc.	12

DIAGNOSTIC ANALYSIS

Of the 82 biopsies performed as a diagnostic measure, 48 had hepatomegaly of undetermined etiology, 21 had suspected primary or metastatic malignancy of the liver, and 13 had jaundice where the differential diagnosis between intrahepatic and extrahepatic obstruction was not possible otherwise.

In the group with enlarged livers of undetermined cause, needle biopsy revealed portal cirrhosis in 23 instances, normal liver in 20, and malignancy in 5.

Of the 21 patients with suspected neoplastic invasion of the liver, 2 had large nodular hy-

perplasia mistaken before biopsy for metastases and two had neoplastic nodules missed by biopsy that were subsequently identified at autopsy. In the remaining 17, needle biopsy

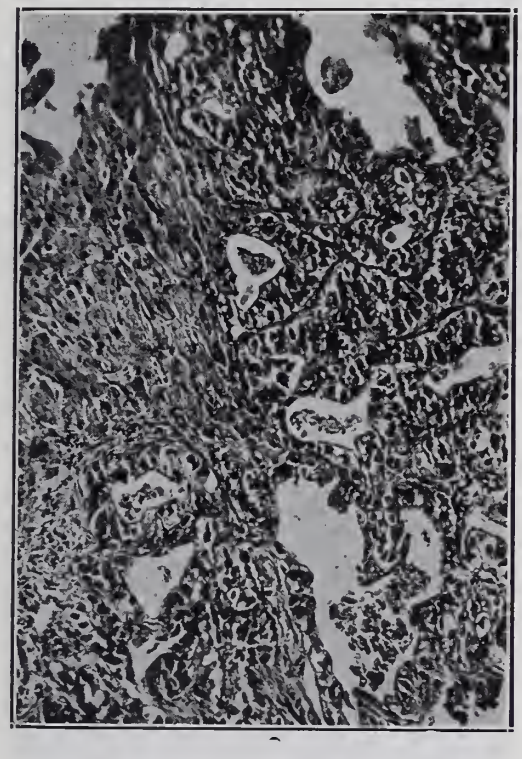


Figure 1. Metastatic adenocarcinoma.

of the liver permitted a histologic diagnosis without resort to laparotomy as illustrated by the following case history:

A 70 year old clerk, was admitted to the hospital with complaint of back pain of four days' duration. Weakness, malaise, fatigability and a 12 pound weight loss had developed during the preceding several weeks. Physical examination revealed a chronically ill patient whose liver was enlarged to 10 centimeters below the costal cage. He had a hypochromic microcytic anemia with a red cell count of 2.8 million. Liver function studies showed a serum bilirubin of 0.8 milligrams per cent, normal urine urobilinogen, urine bile absent, bromsulphalein retention of 16.5 per cent in 45 minutes; total cholesterol of 99 mg. %, with cholesterol esters of 34 mg. %; serum albumin 3.7 mg. %; serum globulin 3.5 gm. %; cephalin flocculation negative, and alkaline phosphatase 13.8 units. Gastro-intestinal studies suggested carcinoma of the stomach. Metastatic adenocarcinoma was found on needle biopsy of the liver. See figure 1.

In the 14 patients biopsied to determine the type of jaundice, 7 showed hepatocellular disease on histologic section and in the other 7, bile stasis was the only abnormality. Two of those with hepatocellular disease also had extrahepatic obstruction. This combination is illustrated in the following case history:

A 61 year old retired business man was admitted with chills, fever and jaundice. Six months earlier he had a cholecystectomy for cholelithiasis but following this had recurrent episodes of jaundice. Physical examination revealed marked icterus, 10 centimeters hepatic enlargement and 5 centimeters splenic enlargement. It was felt the patient had cholangitis incident to a common duct stone. The cause of his hepatosplenomegaly was not evident. Liver function studies revealed both excretory and metabolic abnormalities with serum bilirubin 3.8 milligrams per cent, alkaline phosphatase 30 units, urinary bile, increased urine urobilinogen, cholesterol 239 mg. %, cholesterol esters 96 mg. %, serum albumin 3.38 gm. %, serum globulin 3.84 gm. %, cephalin flocculation 4 plus. A needle biopsy revealed severe portal cirrhosis. An exploratory laparotomy revealed a common duct stone. Postoperatively, the patient had a very stormy course and expired. At autopsy, marked portal cirrhosis was found.

Diagnosis of biliary stasis without cellular changes on needle biopsy led to a decision for exploratory laparotomy. Extrahepatic obstruction was found in 4 of these patients as is illustrated by the following case study:

A 47 year old mechanic, was admitted with a painless jaundice. He had been well until four weeks previously at which time, he developed a sore throat associated with chills, fever, and diarrhea. The diarrhea lasted four days when he noticed that his skin was yellowish, his urine dark and his stools light. On admission he had marked icterus, and his liver was enlarged 5 centimeters below the lowest right costal margin. A clinical diagnosis of obstructive jaundice questionably due to infectious hepatitis was made. Liver function studies showed an obstructive type of jaundice with serum bilirubin 30 mg. %, bromsulphalein retention 88%, serum alkaline phosphatase of 18.3 units, urine bile present without urobilinogen; total cholesterol 316 mg. % with cholesterol esters 59 mg.%. Serum albumin was 3.3 gm.%, cephalin flocculation 2 plus on admission and 4 plus 10 days later; thymol turbidity 2.0 units. A needle biopsy revealed biliary stasis without cellular changes. On exploratory operation an inoperable carcinoma of the common bile duct was found.

Exploratory operation showed no extrahepatic obstruction in three patients now felt to have cholangiolitic hepatitis.[6] Illustrative is the following case history:

A 41 year old housewife, was admitted because

of jaundice associated with pruritis, vomiting and right upper quadrant pain. One month before hospitalization, she had epigastric distress and was given atabrine for intestinal giardiasis. Following this, she became icteric and had chills and fever accompanying her abdominal symptoms. Examination revealed intense jaundice without palpable abdominal masses. Liver function studies showed serum bilirubin 22 milligrams per cent, urine bile 4 plus, urine urobilinogen absent, alkaline phosphatase 32 units, total cholesterol 427 mg. %, with esters 219 mg. %, serum albumin 4.0 gm. %, serum globulin 3.5 gm. %, cephalin flocculation negative, thymol turbidity 2.0 units. Liver biopsy showed biliary stasis. At laparotomy, the gallbladder was collapsed. No obstruction was grossly demonstrable nor could abnormality be detected on subsequent cholangiographic study. Since this time, her jaundice and symptom complex has had partial remission.

OBJECTIVE CONFIRMATION OF DIAGNOSIS AND DETERMINATION OF OR EVALUATION OF THERAPY

Seven patients with infectious hepatitis and 98 patients with varying degrees of nutritional deficiency and alcoholisms have been subjected to needle biopsy for confirmation of a diagnosis or evaluation of therapy. Of the group with infectious hepatitis, three showed the acute or subacute stages, two showed no abnormality, one had fulminant hepatitis and one had portal cirrhosis. The routine case of suspected infectious hepatitis has not been biopsied, but it has been used in the presence of persisting symptoms or maintained abnormality of liver function studies. Illustrative is the following case history:

A 13 year old school girl, was admitted for jaundice and malaise. Three weeks previously, she had an upper respiratory infection followed by nausea, vomiting and diarrhea. There had been no known exposure to agents causing jaundice. Examination revealed a palpable liver and spleen but no ascites. Liver function studies showed serum bilirubin 6.3 mg. %, cholesterol 194 mg. %, cholesterol esters 49 mg. %, serum albumin 2.7 gm. %, serum globulin 5.5 gm. %, cephalin flocculation 4 plus, thymol turbidity 12.6 units, urine bile 4 plus and urine urobilinogen positive in dilution 1:120, alkaline phosphatase 7.3 units. Her liver enlarged further, a low grade fever was present, ascites appeared and serum bilirubin increased to 29. A needle biopsy showed periportal fibrosis, pseudolobulation, bile duct proliferation, lymphocytic infiltration and biliary stasis. A diagnosis was made of portal cirrhosis resulting from infectious hepatitis. The patient became progressively worse despite dietary therapy and expired one year after the onset of illness.

Of those with nutritional deficiency, 76 had portal cirrhosis, one had multiple nodular hyperplasia, 12 had fatty livers, and 9 had normal histology. Patients with cirrhosis have been placed on hepatotherapy, the results of

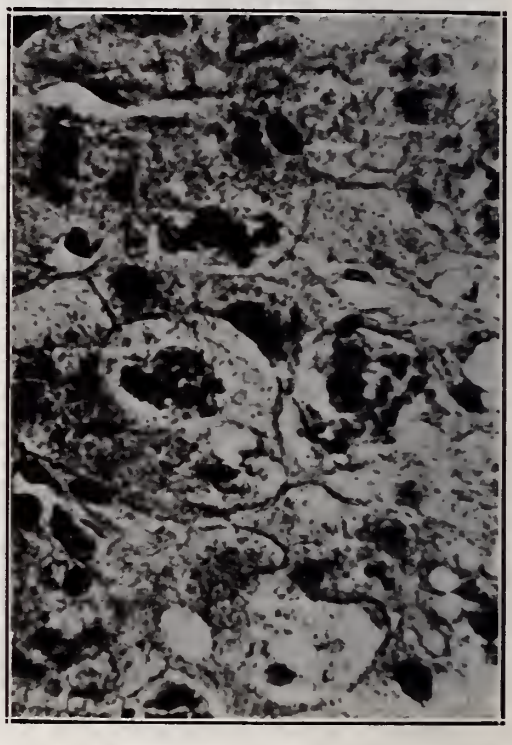


Figure 2. Hyaline necrosis.

which are assayed with clinical observations, biochemical studies, and histologic evaluation before and after the treatment period. The therapeutic regimen has consisted of rest, a high carbohydrate, high protein, moderate fat diet, therapeutic multivitamins with and without methionine and choline. The following case histories are illustrative:

A 58 year old accountant, was admitted with jaundice associated with diarrhea and ankle edema. History revealed a poor dietary intake with chronic alcoholism. Examination revealed jaundice, liver was 10 centimeters below the lowest right costal margin, 2 plus ankle edema. Liver function studies showed urinary bile, increased urine urobilinogen, serum bilirubin of 17.6 mg. %, cholesterol esters 95 mg. %, serum albumin 3.5 gm. %, serum globulin 3.3 gm. % and cephalin flocculation 4 plus. A needle biopsy showed hyaline necrosis and marked fatty metamorphosis. After one month on a high carbohydrate high protein, moderate fat diet with therapeutic multivitamins, another biopsy revealed

portal cirrhosis unchanged, no hyaline necrosis, and slight fatty metamorphosis. Liver function studies improved as shown by serum bilirubin of 1.6 mg. %, cephalin flocculation 2 plus, cholesterol 250 mg. % and esters 140 mg. %. See figures 2 and 3.

On the other hand, many patients have had little change in histology after prolonged periods of therapy:

A 49 year old housewife, was admitted in alcoholic stupor. She had consumed a quart of whiskey daily

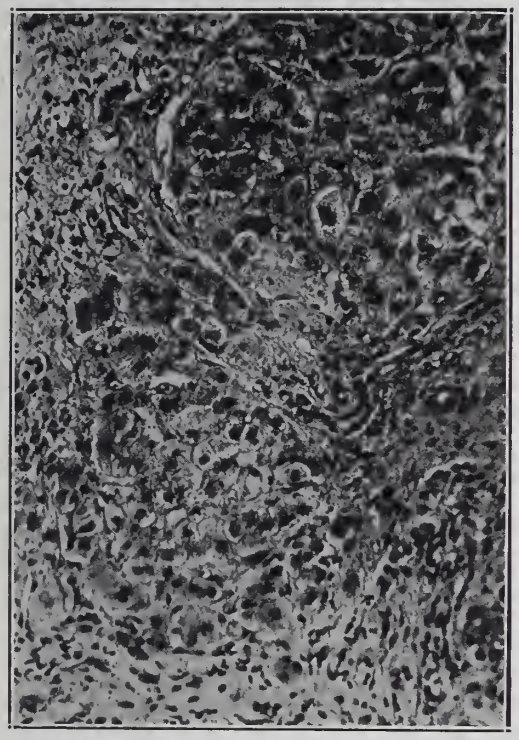


Figure 3. Portal cirrhosis.

and eaten poorly during the preceding three years. Examination revealed jaundice, moderate undernutrition, spider angiomata, ascites and 8 cm. liver enlargement. Liver function studies revealed hypoproteinemia and an icterus index of 34. She was placed on a high carbohydrate, high protein, moderate fat diet with methionine, therapeutic multivitamins and liver extract. Her jaundice and hepatomegaly decreased; ascites was recurrent, and a total of 156 liters of fluid were removed during the next 12 months. Her liver functions improved with a return of her serum bilirubin to normal. After 12 months of therapy, needle biopsy showed marked cirrhosis. Repeat function studies, needle biopsy and clinical evaluation 8 months later showed continued progression of the cirrhotic process. Esophageal varices developed and she expired in hepatic coma after several hours of hematemesis. Postmortem examination revealed marked portal cirrhosis.

SPECIAL INVESTIGATION

Needle biopsy of the liver has been useful in the investigation of protein and carbohydrate metabolism, pellagra, malnutrition, brucellosis, infectious mononucleosis, etc.[7] In the Jersey City Medical Center, we have used it in clinical investigation of liver dysfunction in diabetes and heart failure. Also, we have studied the correlation of biochemical liver function tests and histology and have attempted to evaluate various therapeutic agents in liver disease by this means.

DIABETES AND LIVER DYSFUNCTION

As a part of a program of evaluating liver dysfunction in diabetes, 39 selected diabetic patients were subjected to needle biopsy of the liver. Fourteen patients had normal hepatic function and on biopsy, 10 had normal livers and 4 had fatty metamorphosis. Twenty-five patients had abnormal liver function studies. In this group, histologic evaluation revealed normal tissue in 9 instances, fatty metamorphosis in 6 instances, and portal cirrhosis in 10 instances. Correlation of history, physical examination, function studies, biopsy and therapeutic response in 30 patients with liver dysfunction suggested that hepatic dysfunction was responsible for abnormal carbohydrate metabolism in 13 patients, liver dysfunction was secondary to diabetes in 15 patients, and liver disease and diabetes were coincidental in 2 patients.[8] Needle biopsy of the liver has been indispensable in this study.

HEART FAILURE AND LIVER DYSFUNCTION

In investigating liver dysfunction in heart failure, 46 selected patients were biopsied.[9] Twenty-six of this group had persistent hepatomegaly despite adequate cardiac therapy. Needle biopsy showed previously unrecognized portal cirrhosis in 10 of these and biopsy sections were normal in 16. The contribution of heart failure with its stasis, anoxemia and gastrointestinal dysfunction and previous poor dietary intakes to the development of the portal cirrhosis in individual patients could not be determined with certainty. Seven patients with normal histology and 7 with cirrhosis had previous dietary inadequacies associated with alcoholism. Recognition of portal cirrhosis led

to the initiation of combined hepatic and cardiac therapy with improved results.

CORRELATION OF BIOCHEMICAL FUNCTION AND HISTOLOGY

The non-specificity of the biochemical liver function tests has led many workers to correlate their function studies and histology.[10] A patient may have normal function studies and abnormal histology or normal histology and abnormal function tests. We have found a variable correlation of function and histology. Excretory function has been assayed with determinations of serum bilirubin, excretion of urinary bile, retention of alkaline phosphatase or cholesterol. Metabolic functional capacity has been measured by plasma protein partitions, cholesterol partitions, carbohydrate tolerance, prothrombin changes. Activity of a pathological process has been evaluated with the cephalin flocculation and thymol turbidity.

In the more severe grades of liver disease, there has been a fairly close correlation of anatomy and measured function. (Table 3). With subclinical liver disease, there has frequently been no correlation. Of 50 patients with a variety of chronic diseases, abnormal function studies[9] were found in 58 per cent. Needle biopsy in those with abnormal functions revealed either normal tissue, slight fatty changes, or periportal lymphocyte infiltration.

EVALUATION OF THERAPEUTIC AGENTS

The value of any form of treatment in hepatic disorders is very difficult to assay. Rest, diet and general metabolic status have such variable influences in general well being, physical abnormalities, and biochemical functions. With needle biopsy of the liver, an additional objective measure of therapeutic response is provided. In a series of patients with marked fatty livers without fibrosis, a study to evaluate the relative merits of addition of vitamins and lipotropes to hepatic diets has been initiated. Illustrative is the following case history:

A 45 year old bartender, was admitted in alcoholic stupor after drinking steadily for three weeks. After symptoms of acute alcoholism subsided, he complained of numbness and tingling which were attributed to peripheral neuritis. Examination revealed a 5 cm. hepatomegaly. Liver function studies were normal except for 10.5% retention of bromsulphalein and a cholesterol of 364 mg. % with esters of 162 mg. %. Needle biopsy showed marked fatty metamorphosis. The patient was placed on a high carbohydrate, high protein, moderate fat diet with choline, methionine, multivitamins and liver extract. See figure 4. One month later, function studies and biopsy were normal.

Similar dramatic histologic changes have been noted in biopsies obtained from patients on general hospital diets without supplementary therapy. Liberal fat intakes have not seemed to interfere with disappearance of fat from sections of such livers.

COMPLICATIONS

The complications of needle biopsy of the liver vary with the experience of the operator and the technic employed. Damage to neighboring organs, tumor cell implantation in the needle tract, bile peritonitis, infection, air embolism, hemorrhage and death have been reported.[1] The combined mortality rate from the literature is 0.34 per cent. In our experience, there has been one death associated with the procedure:

A 54 year old housewife, with a 25 year history of alcoholism and poor dietary habits, was ad-

TABLE 3
CORRELATION OF HISTOLOGY AND BIOCHEMICAL FUNCTION

Histological Diagnosis	Percentage Excretory Function Abnormalities Impaired				Percentage Metabolic Function Abnormalities Impaired				
	B.S.P.	Serum Bilirubin	Alk. Phosphatase	Cholesterol	Protein Partition	Ceph. Flocc.	Thymol Turbidity	Cholesterol Partition	Carbohydrate* Tolerance
Fatty Liver									
Marked	83.3	66.7	0.0	50.0	58.3	27.3	18.2	8.3	25.0
Moderate	52.9	72.2	0.0	14.3	45.8	23.5	7.7	7.14	7.0
Mild	18.7	33.3	0.0	20.0	5.9	22.2	5.6	6.7	0.0
Cirrhosis	85.2	67.8	77.0	10.3	71.8	61.8	30.12	57.35	19.3
Hepatitis	60.0	100	83.3	0.0	71.4	100	71.4	83.3	37.3
Malignancy	58.3	58.3	87.5	21.4	46.7	20.0	10.6	28.6	5.9
Biliary Obstruction	100	100	100	100	25.0	25.0	0.0	0.0	0.0
Congestion (Normal)	64.3	73.3	83.3	77.0	25.0	50.0	25.0	47.0	26.3

* Diabetics excluded.

mitted because of hematemesis, melena, and right upper quadrant pain of four days duration. She was jaundiced, had an enlarged heart, auricular fibrillation, ankle edema and ascites. Her liver was barely palpable. Liver function studies showed serum bilirubin 7.7 milligrams per cent, alkaline phosphatase 9.1 units, urinary bile and increased urine urobilinogen, cholesterol 143 mg. %, cholesterol esters 77 mg. %, serum albumin 1.9 gm. %, serum globulin 4.3 gms. %, cephalin flocculation 4 plus, and thymol turbidity 5 units. A glucose tolerance test showed a flat curve; prothrombin time was 24 seconds with a control of 16 seconds; red blood count was 3.5 million.

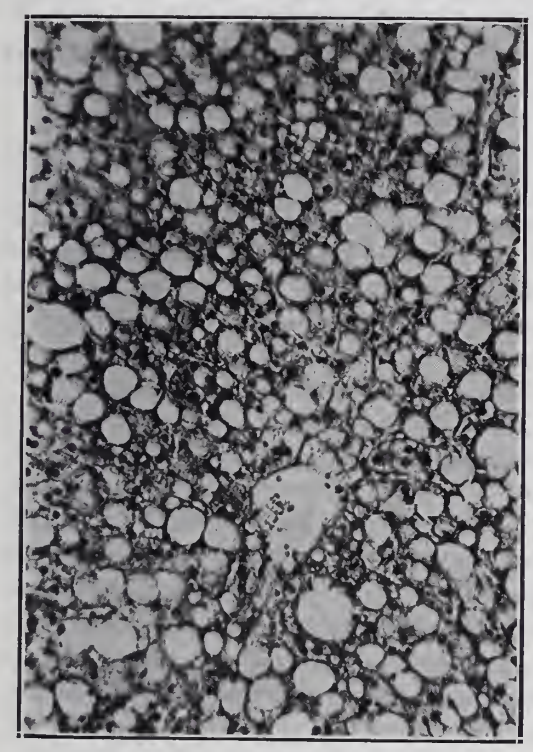


Figure 4. Marked fatty metamorphosis.

The patient, at bed rest, was given a diet of 350 grams of carbohydrate, 175 grams of protein and 80 grams of fat with supplemental vitamin K. Two weeks later, her serum bilirubin was 4.5 mg. %, and prothrombin time was 24.4 seconds with a control of 15 seconds. She had a needle biopsy of the liver through an intercostal approach. Ten hours later she complained of weakness and it was noted she had rapid auricular fibrillation. A diagnosis of intraperitoneal hemorrhage was made. She was digitalized and given transfusions and vitamin K. She improved temporarily but suddenly expired 24 hours after the biopsy. Postmortem examination revealed five litres of bloody fluid in the peritoneal cavity, a severe degree of portal cirrhosis, chololithiasis, an enlarged heart and spleen.

Analysis of this case history, which represented our 277th biopsy, is very instructive. By mistake, the precautions and contraindications previously emphasized and used were not adhered to. It represented a fatality which should not have occurred, since no anomalous vessel or liver tear was present. A review of other reported fatalities and this case history indicates that uncontrolled hemorrhagic tendency contraindicates a hepatic biopsy.

One patient developed a pneumothorax following the intercostal approach. It subsided without ill effect. Another complication occasionaly noted has been pain of varying degrees. This is caused by introduction of the needle through unanesthetized tracts or by distention of the hepatic capsule from blood. Some observers have found pain to persist for several days. Twelve hours has been the longest period we have encountered residual pain.

COMMENT

Needle biopsy of the liver is safe when the correct technic and proper precautions are used. Several methods are advocated with many types and sizes of needles available. The two basic types of procedure are aspiration and coring. The Iversen-Roholm and Roth Turkel needles [1d] or modifications of these needles are most popular for the aspirating technic. Most clinics use the "Vim" Silverman needle for the coring method. Peritoneoscopy has been used to facilitate biopsy and a special needle has been designed for this purpose.[1f]

Much valuable information has been obtained in individual patients and investigative studies from needle biopsy in the liver. It permits the clinician to make an anatomic diagnosis *in vivo* and thereby facilitates interpretation of clinical observations and biochemical function.

SUMMARY

Needle biopsy of the liver is a safe, easily performed procedure when the correct technic and proper precautions are observed. It serves as a useful adjunct to clinical and biochemical studies of disorders of the liver. Its technic, limitations, contraindications, indications and complications have been discussed.

An extensive bibliography appears in the author's reprints.

Jersey City Medical Center

REGIONAL ANESTHESIA FOR UPPER ABDOMINAL SURGERY*

Norman B. Kornfield, M.D., Arlington, N. J.

In July 1946, a 66 year old male, with bilateral, active, pulmonary tuberculosis, was admitted to the Jersey City Medical Center. A further diagnosis of an early carcinoma of the stomach was made. A "radical" anesthetic procedure was therefore deemed permissible since it seemed to promise the best chance of eventual survival. A posterior intercostal and splanchnic block was administered. It provided excellent working conditions and a gastrectomy was performed uneventfully. The patient was discharged after a remarkably smooth postoperative course. He was subsequently admitted to the Pollak Hospital for Chest Diseases for treatment of his tuberculosis. In January 1949, the visiting nurse service reported the patient to be at home and well, apparently free from carcinoma, with his tuberculosis arrested.

Interruption of the conduction pathways to the upper abdomen, usually by local infiltration, has long been the method of choice for the "poor-risk" patient. This method has been used not primarily for the comfort of the patient, but because it is believed to afford the "poor-risk" patient the best start towards recovery. Even with the newer methods of anesthesia, such as cyclopropane and curare, where major surgery is contemplated for the patient who is in bad condition, the consensus is that local anesthesia should be used.

In this series, (which began in July 1946), 141 major surgical procedures in the upper abdomen have been done under bilateral posterior intercostal block, sixth to twelfth thoracic levels, combined with either bilateral posterior splanchnic block, pentothal - nitrous oxide, cyclopropane, or a combination of the latter. The intercostal block provided somatic anesthesia and relaxation in all cases. The splanchnic procedure was aimed at blocking visceral pathways, but was not always completely successful. However, a very light and evanescent intravenous or inhalation anesthetic supplement was all that was required to correct this defect. Latterly, for gallbladder surgery, where there is comparatively little visceral traction, the splanchnic block has been omitted and either pentothal-nitrous oxide, or cyclopropane anesthesia substituted. This supplement is so fleeting that the patient has usually reacted on leaving the operating room.

Advantages of this method include the following. The patient can be placed in a sitting position immediately on return to bed. Since most of these patients are elderly, this is a distinct advantage in preventing hypostatic congestion and pneumonia. The prolonged action of the pontocaine used to block the intercostals usually leaves the patient with a residual anesthesia of the upper abdominal incision, and better aeration and immediate coughing up of secretions is permitted without the inhibiting effect of pain. Most important of all, the vitality exhibited by these aged patients is amazing. This finding is concurred in by both surgeons and anesthesiologists.

Further advantages during the operation include relaxation equal to that of high spinal anesthesia, without the peripheral circulatory stasis which has been estimated to withdraw as much as a liter of blood into the lower extremities from the general circulation. There is usually no drop in blood pressure. An exception to this is the occasional patient who shows a sharp drop following dilation of the splanchnic vessels. However, this drop is usually less and briefer than when spinal anesthesia is used, and is easily corrected by vasoconstrictors.

Aeration is better than with high spinal anesthesia or profound general anesthesia, especially if the latter is supplemented with curare. This is important, not only because of the respiratory complications following prolonged periods of reduced pulmonary activity, but also because of the adverse effects upon circulation produced by the depressed thoracic excursions. Furthermore, in the presence of pulmonary disease with secretions, the continuing presence of an active cough reflex is a great advantage.

* Presented before the Section on Anesthesiology of the 183d Annual Meeting of The Medical Society of New Jersey, April 25, 1949. Dr. Kornfield is an Attending Anesthesiologist at the Jersey City Medical Center.

The disadvantage of the method lies in the fact that, at best, it is time consuming. However, if the equipment and solution are prepared in advance by a nurse, the time of actual administration in experienced hands is about 15 minutes, for both intercostal and splanchnic block; and 5 to 10 minutes for the intercostals only. For the busy anesthesiologist, who must go rapidly from case to case, it does prove somewhat laborious.

The drug employed in our series was pontocaine hydrochloride. There has been much controversy over the safety of this for regional anesthesia, but with 1:1000 and 1:2000 solution, we encountered no untoward effects. Epinephrine hydrochloride is added to prolong the action by slowing absorption. Duration of anesthesia is about four hours.

Since the actual technic of injection has been described elsewhere,[1] a detailed description will not be given here. The intercostal block consists of injecting 5 cubic centimeters of 1:1000 pontocaine beneath the lower border of each rib at its angle, (posteriorly), to block the sixth to twelfth thoracic on each side. The splanchnic block consists of the injection of 50 cubic centimeters of 1:2000 pontocaine bilaterally into the prevertebral space anterior to the first lumbar vertebra. The latter is largely according to the technic originally described by Kappis,[2] and the former substantially follows the procedure described by James.[3]

One hundred and forty-one operations were performed in this series; 54 (or 39.3 per cent) were gastrectomies; 26 (or 18.4 per cent) were other operations about the stomach; 45 (or 32 per cent) were operations involving the gallbladder. And 16 (or 11.3 per cent) were explorations and miscellaneous procedures.

In the first half of the series, 21 per cent of the blocks were "supplemented". In the last half, 70 per cent were "supplemented"; and of the last 29, only three anesthetics were unsupplemented. This trend is emphasized because it has become apparent that the very light and evanescent nature of the supplement does no harm even to the "poorest risk" patient, and affords both patient and operating team great comfort.

Duration of the longest unsupplemented block was 4 hours and 10 minutes. Average time consumed, including administration of the block, was 2¼ hours. Average age of the patients was 55 years. The oldest patient was 84 years, and the youngest 11 months.

Although this technic had been confined essentially to only the poorest risk patients (many of whom had incurable neoplasms) there were only two deaths in the first 72 hours after operation. One cardiac died 36 hours after operation, having gone into pulmonary edema following the administration of 6000 cubic centimeters of fluid. Another died suddenly, on the operating table. An autopsy confirmed the diagnosis of coronary occlusion. This patient had had a history of coronary artery disease.

In the last half of the series, only three patients were not discharged alive from the hospital. One was the aforementioned coronary occlusion case, and the other two had advanced carcinoma before a palliative procedure was done. A wide variety of surgeons, including residents, operated. There has been no mortality attributable to the anesthetic.

SUMMARY

1. Either in combination with general anesthesia, or alone, regional anesthesia for upper abdominal surgery has been used 141 times at the Jersey City Medical Center since July 1946.

2. Anesthesia and relaxation of the abdominal muscles was profound and prolonged. The blocks were successful in 98.6 per cent of the attempts.

3. Advantages and disadvantages of the method are discussed, and a statistical analysis of the series is presented.

4. The most striking attribute of the method is the remarkable vitality exhibited postoperatively by the "poor-risk" patient.

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PROCTOSIGMOIDOSCOPIC EXAMINATIONS IN GENERAL PRACTICE

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This is a survey of the pathology found by doing routine proctosigmoidoscopic examinations in a general medical practice. The inspiration for including proctosigmoidoscopy in my office examinations came from hearing Dr. Frank Lahey urge the development of this skill by all general clinicians. Records of the last three hundred patients examined have been used for this report. The word "routine" does not imply that all or even most of the patients entering the office had this examination; however, I made a conscientious effort to include this in all *complete* physical examinations. By far the greatest majority of patients so examined had no complaints at all suggestive of anorectal or colonic disease.

Swinton, *et al.*[1] in a recent article (and in previous reports from the Lahey Clinic) pointed out the definite relationship between mucosal polyps of the terminal bowel and cancer. They also say:

"It is our firm conviction that, if large numbers of these premalignant lesions are to be discovered, not only must every patient with any symptom referable to the large bowel be carefully investigated but sigmoidoscopic examinations must be a routine part of every complete general examination. Only when a sigmoidoscope is considered as important a part of one's diagnostic equipment as the stethoscope, vaginal speculum, laryngoscope and otoscope will large numbers of these tumors be found and an appreciable number of patients saved from the development of cancer."

My examinations were made for the express purpose of discovering asymptomatic sigmoid or rectal cancer or polyps. The satisfaction from the discovery of just one premalignant or malignant lesion is ample reward for the work involved in making many entirely negative examinations.

It took me a number of years to develop confidence in my examination technic and the results of these beginning endeavors have not been included in this survey. My practice has been limited to internal medicine during the period covered by the survey. Of the 300 cases examined only 25 (or 8 per cent) were referred by other physicians. Were only these twenty-five cases considered, the incidence of serious pathology found would be disproportionately high. The total group is too small to subdivide and the entire group represents, I believe, a fair cross section of patients seen by a general clinician and family physician.

These patients were not all prepared for examination by catharsis or enemas. The simple knee-shoulder position was used exclusively. Large clinics insist on an absolutely clean lower bowel for every examination and use a special Buie or Hanes table. It is impractical, in general practice, to subject the asymptomatic patient to such a special preparation for a "routine" examination. One purpose of this report is to suggest the amount and type of pathology that may be detected *without* special preparation of the patient and *without* a special table devised for this work; in other words just how much will be uncovered when the examination is made a routine as suggested by Swinton.[1] The following table shows the diagnostic breakdown for the last three hundred patients examined as recorded on my office charts:

TABLE 1

Patients examined	300	
Examination unsatisfactory	15	
Patients with satisfactory examinations	285	
Negative examinations	196	68.7%
Major pathology—		
Malignancy of rectum or sigmoid	2	
Benign polyp of rectum or sigmoid	5	2.4%
Ulcerative colitis (diagnosis confirmed)	3	
Minor pathology		
Internal hemorrhoids	68	23.8%
Anal ulcer (fissure—in—ano)	5	1.7%
External hemorrhoids	2	.7%
Cryptitis	2	.7%
Inflamed anal papilla	1	.35%
Melanosis coli	1	.35%

I have not been greatly interested in the

1. Swinton, N. W., Hare, H. F., and Meissner, W. A.: Journal of the American Medical Association, 140:463 (June 6, 1949).

fine points of proctologic diagnosis, but the findings of 68 cases (nearly one quarter of the total) with internal hemorrhoids is worth mentioning as something a beginner in this work can find right from the start with the two inch anoscope and (from my experience anyway) before he can negotiate the ten inch sigmoidoscope well above the rectosigmoid angle. Even my fifteen examinations reported as "Unsatisfactory" were of some incidental value in indicating the bowel habits of the individual. Since further discussion of this report will be limited to the significance of the seven cases found to have malignant or premalignant lesions, a brief summary of these cases follows:

1. This sixty-five year old woman was sent by her physician for a complete physical examination. She complained only of "nervousness" and asked only for a basal metabolism test. Routine physical examination was permitted only with great reluctance, required constant cajolery and was started only after the basal metabolism test, electrocardiogram, 6 foot chest film, blood and urine reports were all found to be of no help. Pelvic, rectal, and proctosigmoidoscopic examinations were finally permitted. A stony hard walnut-sized mass could just be felt high on the posterior rectal wall. Proctoscopic observation confirmed the presence of this tumor before the patient left the office.

2. This man aged sixty-three came for confirmation of a previous diagnosis made elsewhere. There was diarrhea for six weeks but no pain, weight loss, or obvious rectal bleeding. A hard tubular mass was easily palpable over the sigmoid. Proctosigmoidoscopy was significant for blood tinged mucus coming from above though it was not possible to insert the scope beyond the rectosigmoid angle for direct visualization of the tumor. Barium enema films were reported to show only a narrow trickle of barium at the rectosigmoid junction and none above this point.

3. A woman of fifty-five who had an operation for hemorrhoids a few years previously came complaining of diarrhea for the preceding three days. Proctosigmoidoscopy showed a pedunculated polyp high up on the ventral rectal wall. The diarrhea, which probably was entirely unrelated to the polyp, cleared up spontaneously; further study failed to show more polyps.

4. This man of 31, the youngest patient in the group, admitted a laxative habit and complained of rectal itching and discomfort. Examination with the anoscope showed the obvious internal hemorrhoids and with the six inch proctoscope it was possible to see two sessile polyps 2 cms. in diameter at about the 3 inch level and multiple smaller polyps on the first rectal valve. He later had barium and air contrast enemas but no further lesions were demonstrated.

5. This hospital case, a man aged 65, was seen in consultation because of a questionable electrocardiogram and cardiac status. History included the story of occasional rectal bleeding which was minimized by the patient. There was no evidence from the hospital record, physical examination or electrocardiogram of any recent acute heart damage so the complete proctosigmoidoscopy was done. Just above the rectosigmoid angle a single easily bleeding pedunculated polyp was found.

6. A woman of 34 had been examined several times fairly completely by me, including proctosigmoidoscopy, in the previous two years. On this visit she complained of slight anal discomfort. Inspection showed only skin tabs of old thrombosed external hemorrhoids but the repeat proctosigmoidoscopy showed a pedunculated polyp of 15 millimeter diameter coming off the ventral rectal wall at the five inch level. At a second examination after castor oil cleansing, the ten inch sigmoidoscope was maneuvered above this polyp and into the lower sigmoid to the full length of the scope without finding any more lesions.

7. A seventy-five year old woman had a history of "rectal trouble" and constipation on and off all her adult life. Over the years she had had several operations for sphincter dilation and excision of an anal ulcer (fissure), though from about age sixty on she had needed none of this surgery and had had less trouble than in earlier years. In the six months before my examination, however, some of the old symptoms of pain with and after a bowel movement reappeared plus a new obstructive symptom: a sudden explosive bowel movement coming only after prolonged straining. Proctosigmoidoscopic examination showed only minor changes at the anal ring, but at the rectosigmoid there was a cluster of polyps which were causing the partial obstruction at this point.

While the details of treatment and the follow up study of these patients are not within the province of this paper it should be noted that case 1, 3, 4, 6 and 7 were referred to surgeons or proctologists. The diagnosis was confirmed clinically in all and by biopsy in all except case 4 where small sessile polyps were destroyed *in situ* by fulguration without obtaining a tissue specimen. I was unable to follow case 2. Patient 6 refused removal of the polyp. The technical details of getting a biopsy and removal of these lesions by fulguration is not quite so simple a procedure as is implied by many authors. A recent article by Buie *et al.*[2] considers these problems and emphasizes the need for repeated follow up of all rectal and colon polyp cases.

2. Buie, L. A., Smith, N. D., Jackman, R. J., and Hill, J. R.: Journal of the American Medical Association, 139:702 (June 20, 1949).

From the table it is seen that of 300 patients, only 285 were considered to have had satisfactory examinations. None of the fifteen cases with unsatisfactory examinations had leading symptoms: practically all were patients who were requested to return for re-examination after bowel preparation for the sake of further reassurance but who failed to do so. The 285 patients with satisfactory examinations include some with repeat examinations after further preparation and many more in which the original result is reported even though the bowel preparation was not perfect,—providing there was nothing about the examination to arouse suspicion of any unusually obscure lesion. Seven cases out of 285 gives a figure of 2.4 per cent with malignant or potentially malignant lesions. This figure is not as high as might be anticipated from the literature. In fact it would appear to be discouragingly low in comparison with the figures reported by Swinton & Haug[3] who found 10 per cent malignancies and 7 per cent benign polyps of the colon and rectum out of 1843 consecutive autopsy cases at one hospital in nine years. However, patients reaching that hospital form a select group, and the autopsy cases an even more select group compared to the average clinician's office practice. Probably these authors took such facts into account when they estimated the incidence of benign (but premalignant) polyps of the rectum and entire colon to be from 3 to 5 per cent for the general population. Five polyp cases out of 285 giving an incidence of 1.4 per cent discovered in the rectum and lower sigmoid alone, by proctosigmoidoscopy certainly would tend to confirm the estimate of the Lahey Clinic authors. Examination of the bowel above the rectosigmoid area with barium and air contrast studies is impractical as a routine study but this would be the only way the actual incidence of these lesions in the whole large intestine for the general population might be determined. However, if there is going to be any widespread use of proctosigmoidoscopy for what it is worth in routine office practice, it would be valuable to have some idea of just how often a lesion will be discovered by methods that any physician anywhere may use. I hope this report will encourage other practitioners to make more of these examinations on apparently healthy patients and then report their results. The relatively low incidence of major pathology found by me should not discourage anyone; one or two cases in a hundred is worth finding and the many normal cases keep one in good practice for the occasional lesion.

Many standard texts on proctology are available which give adequate details on equipment and examination technic. In addition there are many good papers on this subject written particularly for the clinician and internist. *Proctologic Diagnosis* by Newton D. Smith[4] is an excellent short article in the recent literature giving the fine points of technic.

I have made all of my examinations using the simple "Nicholas-Senn" style examining table with the patient in what is loosely called the knee-chest position but what actually is a knee-shoulder position. Most illustrations of this position show the patient with forearms at table top level, one forearm curled around in front of the head and the other folded across under the chest. This is an unstable position unless an assistant is always present to steady the patient's chest and shoulders. I have found the rear sloping legs of these old steel tables (used with the front section dropped down) make ideal hand holders; the patient merely dropping both arms over the edge of the table to grasp the table legs for balance and security. The face is turned slightly to one side, the opposite shoulder rests on a firm pillow, the back is a straight inclined plane from sacrum to neck, the thighs are exactly perpendicular to the table top (avoid an upward arching of the back) and knees and legs rest on the mid section of the table so that the ankles just hang over the front. I have made a little point of this matter because such a position is difficult to obtain on the newer styled cabinet examining tables with their wider tops and smooth panel sides. The manufacturers of one of the leading styles of cabinet examining tables is considering a "hand stirrup" on the sides of the

3. Swinton, N. W., and Haug, A. D.: Bulletin of the Lahey Clinic, 5:84 (January 1947).

4. Smith, N. D.: Surgical Clinics of North America, 26:981 (August 1946).

cabinet but has told me that there has been no demand for such a device and that it would "spoil the beauty of the table". Manufacturers of these cabinet tables illustrate a so-called "knee-chest" position obtained by elevating the front of the mid section of the table. However, the amount of elevation that any of these cabinet tables will allow is entirely inadequate and not to be compared with the tipping available in the special Buie or Hanes tables which automatically tip the patient into the proper position for examination. Since not all doctors are going to buy, or should have to buy, these special tables the only alternative is to keep the style of conventional examination tables such that it is possible to get the patient into a good secure knee-shoulder position without always the need of an assistant to steady him.

SUMMARY

(1) Report is made on 300 patients in a general and internal medical practice on whom routine proctosigmoidoscopic examination was made.

(2) Two hundred and eighty-five examinations were considered complete enough and satisfactory for inclusion in this report.

(3) Seven patients were found with malignant or premalignant lesions and a short history of each case is given.

(4) Comments are made regarding this 2.4 per cent incidence of major pathology compared with previously published estimates of what this incidence might be for the general population.

(5) The inadequacy of the popular cabinet style examining table for this work is discussed.

420 Chestnut Street

THE DELINQUENT DR. BUDD

In our October issue we published, as an item of historical interest, the following extract from the minutes of the November 9, 1773, meeting of The Medical Society of New Jersey:

"Dr. Bernard Budd, a member of this Society, having fallen into a most criminal deportment as a public delinquent and offender against the Dignity and Majesty of our most gracious King and Sovereign, the Society unanimously agreed to expel the said Bernard Budd as a person really scandalous and unworthy of the notice of its members."

We then appended a footnote: Does any medical historian or antiquary have the real story here?

At least one of our readers *does* have the answer. Following is part of a letter recently received from Dr. M. Eugenia Geib of Elizabeth — we almost wrote 'Elizabethtown' — a member of the Union County Medical Society:

"In November 1769, Dr. Budd is reported to have 'misrepresented the designs of the Society, causing gentlemen of the Faculty to be prejudiced against becoming members'. This Dr. Budd was one of the founders of our Society. He came from a family which settled in 1668. Budd Lake is named for them. This family is remarkable for the number of medical men it produced. Bernard was highly esteemed, both for his medical skill and social standing, but he evidently was financially embarrassed, because he became interested in counterfeiting bills of credit of the Province of New Jersey. He was condemned to be hanged, but was reprieved on the morning appointed for his execution, and subsequently received a full pardon. It was for this forgery that he was expelled from our Society. Later he became an army surgeon and died 'of fever' in 1774. He is buried near Morristown.

"Some years later, a Dr. Clarkson Freeman was convicted of forging state certificates. He, too, was expelled from the Society. . . ."

Yours very truly,
M. EUGENIA GEIB, M.D.

CALCIFICATION OF THE ANNULUS FIBROSUS

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Calcification of the mitral ring is not uncommon and may be demonstrated roentgenologically when there has been deposition of adequate amounts of calcium-containing salts. Despite its relative frequency, little is known of its pathogenesis or significance. Its clinical recognition does not approach its pathologic description. The following case is recorded as representing an advanced degree of calcification in a normal sized heart.

A 78 year old retired farmer presented himself for routine physical examination. He had been an unusually active and progressive farmer who had carried through his productive life without serious illness or injury. There was no cardiac history and he denied cardiac symptoms by name and description. There was no history of rheumatic fever. A review of his organ systems was essentially normal.

Physical examination revealed a well preserved robust elderly white male. There was no cyanosis or jaundice and no dyspnea on exertion. The eyes revealed a moderate arcus senilis, but otherwise were completely normal. The nose and throat were normal. The thyroid gland was palpable but not enlarged, and there was no general glandular enlargement. Lungs were clear to percussion and auscultation. Both diaphragms had satisfactory excursion. The heart was not enlarged to percussion. Heart sounds were of good quality and the rhythm was regular. There was a soft systolic murmur at the apex which extended over the precordium but not to the axilla. There were no thrills. The abdominal examination was completely normal. Liver, spleen and kidneys were not palpable. The genitalia were normal save for some testicular softening. Rectal examination was normal, and the neuro muscular system revealed no abnormalities.

X-ray examination of the chest revealed clear lung fields. There were no abnormalities of the bony thorax. The immediate and striking finding was the presence of a large ring-shaped area of greatly increased density in the area of the heart extending from the 4th to the 6th rib anteriorly (Figure 1). The center of the area was clear, but the ring itself was distinctly of calcium-bearing density. The overall measurements of the ring were 5.6 by 3.1 centimeters, and it varied from 6 to 13 millimeters in thickness. In the postero-anterior projection, it extended from the midline 5.2 centimeters to the left and cephalad in the line of the atrio-ventricular septum. The cardiac measurements in the postero-anterior projection were, in millimeters: M.R: 38; M.L: 76. Transverse diameter of the heart: 114; diameter of the great vessels: 64; and transverse diameter of the chest 260.

Under fluoroscopic examination the calcified shadow was demonstrated to be definitely intracardiac and located in the line of the atrio-ventricular septum. The shadow had a definite and fascinating movement. It moved *en masse* and its excursion appeared to be towards and away from the apex. It did not present the dancing motion seen in valve leaflet calcification. As the patient was rotated under fluoroscopic vision, the shape of the calcification was established as oval tending towards circular, its projection changing as the rotation was altered.



Figure 1.
Postero-anterior position demonstrates advanced calcification of the annulus fibrosus.

The right and left anterior oblique views (Figure 2) confirmed the location of the calcification as being in the annulus fibrosus which supports the mitral valve. The lateral projection (Figure 3) was interesting but of little value in localization.

The electrocardiogram revealed normal sinus rhythm at a rate of 72. The PR interval was 0.18

and the QRS complex measured 0.06. The standard leads and multiple precordial leads were completely normal.

Laboratory examination included hemoglobin 14.4 Grams; red cells, 4,640,000, and white cells, 6800. Differential blood count was polymorphonuclear leucocytes 66 per cent, lymphocytes 24 per cent, monocytes 8 per cent, and eosinophiles 2 per cent. Urinalysis showed a clear amber colored urine with a specific gravity of 1022, acid reaction, no albumin, no sugar, and a negative microscopic examination. The erythrocyte sedimentation rate was two millimeters in 15 minutes and eight in one hour. The blood NPN was 34, and the blood calcium was 10.2 milligrams per cent.

Since the time of the original examination the patient has been checked at six month intervals and continues to be completely symptom-free with apparently a good cardiac reserve.



Figure 2.
Right anterior oblique position helps localization of the intracardiac calcification.

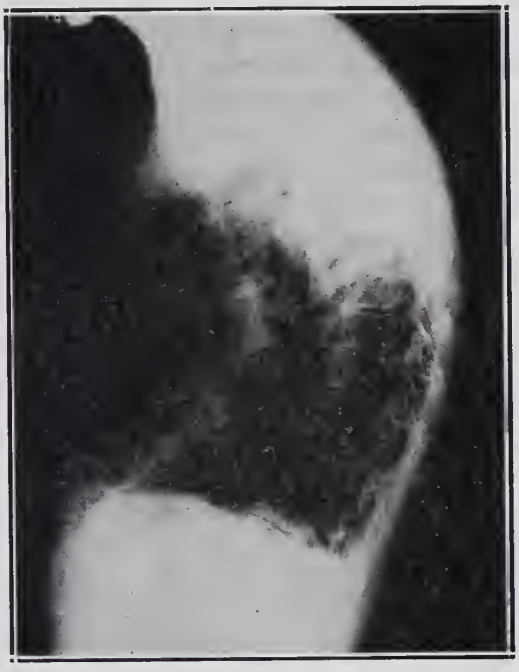


Figure 3.
Left lateral position demonstrates overall size of calcified annulus fibrosus but does not help in its identification.

It is probable that intracardiac calcification was first demonstrated by roentgenologic examination by Rudis Jucnsky[3] in 1903 but his description was not clear. However, calcification of the annulus fibrosus had been known and recognized pathologically long before the advent of the x-ray. In 1922, Klason[9] accurately described the x-ray findings in a 77 year old man but it remained for Fleishner[6] in 1925 to describe accurately during life, and then prove by autopsy, pure annulus calcification.

Since then many articles have appeared considering not only annulus calcification but all types of intercardiac calcification and dealing with methods for their different diagnosis during life. Sosman[1,3,11] has made major contributions and has stressed the frequency of significant findings if adequate examinations are made.

For all the descriptive work, there has been little elucidation of the process by which it occurs. It has been clearly demonstrated[10] that there is no relation to rheumatic heart disease. It is most likely that there must always be some element of damage or injury preceding the process, even though the damage be simple degeneration. Alsdorf[15] added that the calcification process is preceded by regressive metamorphosis of the heart muscle fibres except where the process is part of a general calcium metastasis. However, the skeleton of the heart consists primarily of connective tissue which forms a firm wall between each auricle

and ventricle as well as between the auricles and ventricles themselves. The portion of the skeleton between the auricle and the ventricle serves for the insertion of the auriculo-ventricular valves as well as for the large outflow organs. The fibrosus annulus consists of a tendinous connective tissue poor of cells and elastic fibres, but made of very dense collagen fibres. In many aging hearts dystrophic changes in the skeleton are found with varying degrees of regeneration, necrosis, atheroma formation and finally calcification.

The process occurs very much slower than in the myocardium following an infarction and because of the difference in their functional locations carries none of the implications of the latter. In most cases calcification of the annulus fibrosus is of no functional significance, and its only clinical implication is that a degenerative process has been in progress.

Recognition of calcification in the heart may be demonstrated by routine roentgenologic films but many will escape detection unless careful fluoroscopic examinations are made. Postero-anterior projection will not prove the location of the calcification and study in the right and left oblique position is always necessary. The main prerequisite for discovering intracardiac calcifications is to be looking for them.

The distinction must be carefully made between calcification of the mitral annulus fibrosus and calcification of the mitral valves. The annulus calcification is usually large and in the shape of C or U. The process usually starts in the posterior third of the ring and extends forward on both sides. It is dense and homogeneous, the extent of the calcification being such that as much as 6 to 8 Grams of lime salts have been extracted. The calcified valve is more likely to be irregular. Under fluoroscopy it shows its characteristic "dance" in the opening and closing mechanism whereas the movement of the ring is of less amplitude and the ring moves as a whole from systole to diastole. Roentgen kymography may demonstrate some characteristics of intracardiac calcifications, but may not differentiate between ring and valve lesions. It is important that the distinction be made, if possible, as calcification of the valve is almost diagnostic of rheumatic disease whereas ring involvement is not rheumatic and portrays no functional hazard to the heart. However, neither process is severely limited in its own extent and rheumatic valve calcification may extend towards the ring, and calcification of the annulus may progress into the base of the valves.

A similar fibrosus ring exists about the origin of the tricuspid valve but calcification here is rare. No specific calcification takes place about the supporting ring of the aorta and pulmonary valves save that indigenous to the walls of the great vessels. The case described above represents an advanced degree of the process, and it is remarkable to consider that there was no functional impairment of the heart despite the presence of an actual ring of stone within the heart substance proper about the base of the mitral valve.

SUMMARY

Report is made of a case of advanced calcification of the annulus fibrosus. While this is essentially a benign and asymptomatic finding the importance of differentiation from calcification primarily of the mitral valve is pointed out. It is believed that calcifications within the structure of the heart would be more frequently demonstrated if they were considered and sought.

The references appear in the author's reprints.

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PULMONARY HEART DISEASE *

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Pulmonary heart disease—a more apt term than cor pulmonale, or right heart strain—has been brought to the foreground more and more since the initial report by Ayerza [1] in 1925. Eppinger [2] tried to find out a century ago, why certain cases of obstructive emphysema developed cor pulmonale and others did not. Through recent advances in pulmonary physiology, we now observe right heart enlargement, with or without failure, and no left heart abnormality, much more commonly. Purpose of this paper is to stimulate the recognition of pulmonary heart disease clinically with our present diagnostic armamentarium.

Normally, the pulmonary circulation interposed between the right and left chambers of the heart is the only vascular communication. Cournand [3] has stressed the compensatory mechanism in which the output of the right heart is increased with elevation of venous pressure. I shall not dwell on this, except to refer to the excellent study by Spain and Handler,[4] in which they emphasized diffuse obstructive emphysema as the primary mechanism in the development of cor pulmonale. Brill's classification [5] embodies all types of heart disease, but for this presentation, acute, subacute and chronic will suffice.

ACUTE COR PULMONALE

Acute cor pulmonale is caused by a sudden obstruction of a large part of the pulmonary circulation. This may be due to embolism, either systemic or venous thrombosis from the pelvis, abdomen or leg veins, the right side of the heart, or, rarely rupture of aortic aneurysm into the pulmonary artery. White [6] states that "pneumonia and other pulmonary infections do not give rise to acute cor pulmonale"; but Zimmerman [7] finds that it is seen occasionally in pneumonia when intrapulmonary tension added to the toxemia (and probably to myocardial anoxia) may result in right-sided failure. It is certainly not seen as a result of blast, irradiation burns or bilateral spontaneous pneumothorax, although McGinn [8] describes a case of acute cor pulmonale following a traumatic diaphragmatic hernia.

Differential diagnosis is a problem chiefly because of its resemblance to a coronary occlusion. In both, there may be sudden onset with dyspnea, substernal pain, nausea, vomiting and shock. Leukocytosis and fever are present in both. The friction rub of a dilated pulmonary conus may be mistaken for an anterior myocardial infarction. The electrocardiogram may be the deciding factor. Although both produce serial changes, the regression of changes in acute cor pulmonale (when they recover) occurs earlier. The treatment is the same: morphine and atropine, oxygen and dicumarol.† The wisdom of digitalis or venesection is still debatable. Certainly, if failure, or marked polycythemia is present, I see no contraindication.

SUBACUTE COR PULMONALE

Subacute cor pulmonale is the least frequent of the three. It is usually caused by infiltration of a metastatic carcinoma by way of the perivascular lymphatics and secondarily involving the pulmonary arterioles. Greenspan [9] has accurately described this, showing that the primary site is most often the stomach, but that prostate, kidney, breast or bronchus may also be the original foci. Sickle cell anemia[10] and multiple smaller pulmonary emboli [11] may produce a similar picture.

CHRONIC COR PULMONALE

The following classification is used by most of the workers[4, 12, 13] in the field:

1. Primary pulmonary hypertension (due to obstruction of the pulmonary circulation beyond its own limits)
   a. Main pulmonary arteries
   b. Pulmonary arterioles

* Read at the Annual Meeting of The Medical Society of New Jersey, April 28, 1949.

† Dicumarol is the registered collective trademark of the Wisconsin Alumni Research Foundation which controls the use thereof.

2. Secondary to lung disease

   a. Emphysema
      1. Bronchitis
      2. Bronchiectasis
      3. Cystic disease

   b. Pneumoconiosis
      1. Silicosis
      2. Anthrasilicosis

   c. Pulmonary fibrosis
      1. Tuberculosis
      2. Bronchial asthma
      3. Scleroderma

3. Alteration of thoracic cage

   a. Kyphoscoliosis [14]
   b. Thoracoplasty

It is unlikely that anatomic damage to the lungs is directly responsible for pulmonary hypertension. Obliteration of half the vascular bed by ligation of the left pulmonary artery produces no increase in pulmonary arterial pressure.[15] Does one measure anatomic lung damage by residual air? In heart failure from emphysema the cardiac output is normal or above normal except terminally, when the blood pressure fails.

Griggs, *et al.*,[16] have shown that in 45 uncomplicated cases of emphysema, 30 per cent showed right ventricular hypertrophy. They concluded that a large number of silicotics would die of right heart failure if they remained uncomplicated by tuberculosis or other pulmonary infection.

DIAGNOSIS

Though the pressure in the right ventricle and pulmonary artery can be measured directly,[17] it is scarcely a routine clinical method, and *early* differential diagnosis could enable institution of effective therapy earlier. Spain and Handler [4] have shown where cor pulmonale was *not* clinically diagnosed in one case of fifty postmortem studies until gross failure appeared. The diagnosis depends upon an understanding of the disorders capable of producing it.

Symptoms are primarily those of pulmonary hypertension. *Dyspnea* may occur gradually and become progressively worse. As anoxia increases, varying degrees of *cyanosis* are observed. In contrast with the cold blue hands and ears of "low-output failure" (resulting from hypertensive ischemic or valvular heart disease), the hands are warm, with a good peripheral pulse. Orthopnea is strikingly absent, in the absence of chronic bronchitis. Cough, though frequent, may be absent.

Except in children, the appearance of an accentuated pulmonary second sound is suggestive. This is due to the more forceful closure of the pulmonary semilunar leaflets as a result of high pulmonary circuit pressure.

The supplemental signs are usually those of the primary disease; such as clubbing, polycythemia, coarse moist rhonchi, et cetera.

When frank failure is present, the full-blown picture of hepatic enlargement, ascitis, dependent edema, and distended peripheral veins, is fairly obvious.

The venous pressure as manifested by the hepatojugular reflex[18,25] may afford an earlier sign of right heart failure. Altschule [19] has shown that rapid intravenous saline infusion will produce changes in venous pressure in a decreased cardiac reserve. Radiology is a useful diagnostic tool, but the tendency is for the clinician and roentgenologist to concentrate on the primary lung condition and forget the heart findings. Rigler and Hallock [20] state that "roentgen findings are by far the most important means of establishing the presence of right heart enlargement before failure has supervened".

X-ray, especially fluoroscopy, in the left and right anterior oblique, PA and right lateral, will show the characteristic findings of hypertrophy and dilation of the right ventricle and the enlargement of the conus. A barium-filled esophagus will rule out mitral stenosis and the history and characteristic physical findings will suggest congenital heart disease. With diodrast, Sussman [16] has demonstrated the change of convexity to the left of the intraventricular septum, in right ventricular hypertrophy, with the use of contrast media. Heart size is misleading, in the presence of emphysema, whether measured by the Ungerleider-Clark method or cardiothoracic ratio, because it is usually found to be within normal limits. Lordotic films and tomography may be of value in demonstrating the distended pulmonary vessels at the hilum.

ELECTROCARDIOGRAPHY

Most students accept certain common electrocardiographic findings in establishing a diagnosis.[21, 22, 23] The presence of right axis deviation or the development of a deep S is most important. Other findings are:

1. Large pointed P waves with right auricular hypertrophy. In left hypertrophy the P waves are broad and notched.
2. Goldberger's[22] unipolar leads bring out negative P in AVL, diphasic or negative T in AVF, small R waves in V leads, deep S in V_4, 5 and 6, diphasic or negative P and negative T in V_1, 2 and 3.
3. A prominent S_1 and an ST_2 staircase rise, with prominent P_3 and inverted T_3 are frequently observed and strongly suggestive of cor pulmonale.

TREATMENT

Prevention is the ideal therapy. General measures prophylactically consist of, avoidance of fatigue, use of anti-biotics in upper respiratory diseases, and breathing exercises by voluntary costal margin pressure, or an abdominal belt, if obese. If economically feasible, milder climate in winter months, or even permanent relocation may be considered. Correction of chest deformities with the newer advances in chest surgery may help the kyphoscoliotics. I offer this as a challenge to the chest surgeon, as he shows more and more the reversibility of heart disease.[6]

Treatment of right heart failure: the routine of mercurials, low sodium regime, digitalization and oxygen are well known. Oxygen by positive pressure is frequently life-saving. McMichael[24] has discussed the dangers of digitalization and phlebotomy. He has pointed out that lowering of venous pressure with digitalis produces occasional sudden death. If the heart is being over filled, phlebotomy and digitalis may be tried.

Taguchi, Dressler and Hurst[25] have been using propylthiouracil in certain selected cases of cor pulmonale with "striking" results. A word of caution is offered here on the use of sedation. These patients are restless and may be disoriented, as a result of cerebral anoxemia. In the final analysis, codeine and other narcotics do suppress a cough reflex, with resultant "puddling" of bronchial secretions and increase of anoxemia. Paraldehyde is not advised because it is largely excreted by the lungs. Chloral or barbiturates may be tried, but they are often excitatory in older people.

COMPLICATIONS

In itself a complication, cor pulmonale may be accompanied by coronary heart disease, hypertension or respiratory infections. Although most cor pulmonale patients also have coronary disease, angina is rare. This may be because dyspnea (which results from the primary pulmonary condition) prevents the patient from performing any physical exertion which may induce attacks of angina. Most frequent cause of death prior to the advent of anti-biotics was pneumonia. Now, the associated cardiac disease is the chief cause of death, although some die of isolated right heart failure.[20]

SUMMARY

1. A brief historical background of pulmonary heart disease with a classification into acute, subacute and chronic cor pulmonale, is presented.

2. The primary mechanism and associated factors in the development of pulmonary hypertension is a resistance of lung blood flow.

3. The clinical signs, symptoms and aids to differential diagnosis are considered.

4. X-ray, electrocardiogram, changes in venous pressure and decrease in cardiac reserve are adjuvant diagnostic tests in planning the prophylaxis of pulmonary heart disease.

5. Treatment of cor pulmonale with or without failure is aimed at combating anoxemia.

6. A word of caution on the use of narcotics (especially in restless and excitable patients) is offered.

7. The cause of death is usually cardiac failure, either with coronary heart disease or isolated right heart failure.

601 Grand Avenue

A list of 25 citations to the literature appear in the author's reprints.

MULTIPLE POSITIVE PATCH TEST REACTIONS

SEYMOUR L. HANFLING, M.D., East Orange, N. J.

Purpose of the patch test is to determine whether epidermal sensitivity to a suspected allergen exists. Allergens that elicit manifestations of hypersensitiveness by means of direct contact with the skin or mucosa are called *contactants*.[1] A simple technic of patch testing, described by Schwartz,[2] was the procedure used in the case described below.

This form of testing was originally studied and correctly interpreted by Jadassohn in 1895 long before similar work was done in other forms of allergy.

Contact dermatitis is probably the most common of all recognized allergic diseases. This has resulted in widespread investigation of the subject, since the patch test is relatively simple to perform and presents fewer possible sources of error than any other type of allergy testing. Also, in general, the test more closely simulates the actual exposure and results in the closer reproduction of the disease than tests in other forms of allergy.

Despite the relative safety of patch testing as an aid in determining the etiology of a contact dermatitis, it should be performed only when necessary and then only by those acquainted with its management and potential complications.

We must first be sure that the contactant is not in itself a primary irritant, i. e., an agent capable of producing a reaction without previous sensitization. Then we must be certain that the concentration used does not produce primary irritation. There are also some inherent dangers such as a flare-up of the eruption or even a generalized reaction due to absorption of the contactant through the skin of the patch test area.

A positive patch test to a substance to which the skin is exposed is not *prima facie* evidence that the substance is the cause of the dermatitis. Too often we see polyvalent sensitivity in which many tests are positive. In some, there is no eczematous skin reaction despite repeated exposure to the contactant. On the other hand, there are times when the dermatologist is confronted with all negative tests, when he is convinced that one of the substances is the causal agent. This can sometimes be explained by the difference in the mode of contact as when friction or some lowering of the normal skin protective mechanism, such as an abrasion or scratch, is involved. This negative reaction can also be due to testing during a period of decreased sensitivity or on an area of minimum sensitivity.

A case in point is a 17 year old stenographer, who stated that she had had intermittent "hives" all her life but was otherwise healthy. An itchy, vesicular, oozing, crusted, erythematous eruption appeared on both elbows ten days after she started working. The eruption spread slightly and I saw her four days after its onset. She believed the eruption was due to resting her elbows on a composition pressed-board desk top. She wore short sleeves at work and opened letters and did other work with her elbows on the desk. She was sent home and advised to compress her elbows in a cold one-to-forty Burrow's solution for fifteen minutes every two hours and then to apply an emollient made up of lanolin, olive oil, and zinc oxide ointment. Four days later, bullae appeared on her elbows and forearms. Treatment was changed to 2 per cent boric acid cold compresses and an olive oil and zinc oxide ointment emollient. Patch tests were applied with all medications prescribed and with pieces of the desk top. She was seen 72 hours later. There were now vesicles, bullae, swelling, heavy crusts, and considerable erythema of both arms and hands, and a fine vesicular, erythematous, slightly crusted eruption of the face and exposed portion of the neck and chest. She showed a papulo-vesicular eruption beneath all the adhesive tape and also on all the patch test areas. Feeling that I was dealing with a multisensitive skin, I advised normal saline compresses, colloid baths, and a simple "shake emulsion". She obtained immediate relief and her recovery proceeded rapidly and uneventfully thereafter. She returned to work but used a blotter as a desk covering and wore long sleeved blouses.

Three months later she was retested as before. Only the piece of the desk top still showed a positive (three plus) reaction.

1. Urbach, E., and Gottlieb, P.: *Allergy*, Ed. 2, p. 373, New York, Grune and Stratton, Inc. (1946).
2. Schwartz, Louis: Allergic Contact Dermatitis, *Clinics*, 5:436 (1946).

The question is this: did the patient present a group of false positives due to a general skin irritability? Or had she a true "multisensitive" skin? In view of the aggravation of the dermatitis on treatment with these same substances, I feel that this patient developed a sensitivity to a detergent cleanser, Burrow's solution, lanolin, and an oxycholesterolinated petrolatum during the acute phase of the eruption. Three months later, this had disappeared. This emphasizes the difficulty of patch testing to determine true skin sensitivity during the acute phase of a contact dermatitis.

SUMMARY

1. The advantages and disadvantages of patch testing are presented.

2. A case is reported where all patch tests were positive during the acute stage.

3. Repeat patch tests three months later were all negative except for the composition pressed-board desk top.

4. The positive reactions would seem to be true multiple sensitivities and not false positives since the dermatitis spread to all exposed surfaces on therapy with these tested substances despite removal of the patient from the original causal agent.

115 South Munn Avenue

THE F.B.I. WILL GIT YOU EF YOU DON'T WATCH OUT!

(Based on James Whitcomb Riley's "Little Orphant Annie")

J. Edgar Hoover's come to A.M.A. to stay
An' scrutinize our records an' cause us all dismay,
An' probe into our papers an' snoop around a heap
An' analyze our every thought an' the company we keep.
An' all us bad "monopolists" when supper-time is done
We set around the radio an' has the mostest fun
A-listin' to the witch-tales 'at McGrath tells about
How the F.B.I. will git you
Ef you
Don't
Watch
Out!

Wunst they wuz a doctor who wouldn't say his prayers
Fer Bess an' Marg an' Harry an' all the White House heirs.
The nurses heerd him holler an' his patients heerd him bawl
An' when they wint an' looked fer him, he wusn't there at all!
They put 'em in the deep-freeze safe from freedom of the press
An' went through all his tax returns from '38, I guess
An' all they ever left him wus his pants turned round-about
An' the F.B.I. will git you
Ef you
Don't
Watch
Out!

An' wunst there wuz a dentist who'd allus scoff an' sneer
An' say that social dentistry would *never* happen here
He defied the British Empire, Mister Bevin's social state
An' vowed his Yankee brothers would not share that tragic fate
An' as his awful blasphemies made blue the office air
He turned an' saw two G-men a-standin' by his chair.
They quickly checked his records 'fore he knew what he's about
An' the F.B.I. will git you
Ef you
Don't
Watch
Out!

So allus make your night calls though the bills are overdue
An' your bed is soft an' comfy an' the wind goes woo-oo!
You can hear Jack Ewing rantin', you can hear Mike Davis bray
An' Falk a-spoofin Congress that folks won't have to pay—
So you'd better watch your patients an' mind your p's and q's,
Attend your county meetin's an' pay up your annual dues
An' warn your friends an' neighbors ef the doctors take the count
How the F.B.I. will git *them*
Ef you
Don't
Watch
Out!

—TOM HENDRICKS

RINGWORM OF THE SCALP *

M. H. Holland, M.D., Weehawken, N. J.

For the past several years, many of the large cities in New York and New Jersey have been the site of an epidemic of tinea capitis. Purpose of this article is to review the clinical features and effective therapy of ringworm of the scalp in view of its current prevalence.

Most of the cases are due to *Microsporon audouini,* which is transmited from human to human. This is in contradistinction to the animal type, known variously as *M. lanosum, M. felineum,* and *M. canis.* The fungus involves the hair shaft itself, extending down into the follicle causing the hair to become brittle. The hair breaks near its exit from the scalp producing patches of relative alopecia. In the human *(audouini)* type, there is little or no accompanying inflammatory reaction; in the animal *(lanosum)* type, there is often associated folliculitis and dermatitis. Transmission is often through barbers' instruments, the backs of chairs in buses and theatres, and by direct contact with individuals who have the disease.

Persons over the age of 15 are almost immune from the disease due to the higher concentration of fatty acids in the sebaceous secretion of their scalp. These acids (undecylenic, caprylic, caproic, butyric, propionic, etc.) are fungistatic and even moderately fungicidal. This accounts for the relative immunity of adults.

Recognition of tinea capitis is greatly facilitated by the use of a Woods lamp (filtered black light), which causes the infected hairs to fluoresce a bright green, making them easily distinguishable from the normal hairs. Such lights are now standard equipment in many doctors' offices, clinics and schools.

Eradication of the animal type may be effected in most cases by various salves containing either sulfur, salicylic acid, the fatty acids, ammoniated mercury, or iodine. Resistant cases require x-ray epilation. The human type almost invariably requires x-ray epilation since no known salve has the power of penetrating the hair shaft to the extent necessary to effect a cure. Many salves have been recommended, including the fatty acids and salicylanilide. However, in our experience, both privately and in the clinic at the Jersey City Medical Center (where all methods of medication have been given a thorough trial) no treatment is comparable with x-ray epilation in conjunction with salves. The latter are necessary to sterilize the hair follicle to keep the new hair free from the fungus. X-ray therapy disposes of the hair but has little or no fungicidal effect. Aside from thallium acetate, (which is too toxic to be safe) there is simply no other practical method for removing the hair.

X-ray epilation, (if administered by technicians properly trained in epilation) is a completely innocuous procedure. Defluvium is usually complete in three or four weeks and regrowth takes place in three or four months. Using the 5-field method of Adamson-Kienbock and employing a proper apparatus calibrated by a qualified x-ray physicist, there is a very wide safety margin in using a dosage of 350 roentgens per field. Many thousands of epilations have been done during the past decade without a single instance of permanent alopecia. This is so in spite of errors in clinics where the same child has been given an epilating dose twice within a period of a month. Follow-up treatment and observation (including instructions with regard to the wearing of caps and the use of an efficacious fungistatic salve) are essential and make the difference between a good and a poor result.

Patients with ringworm of the scalp should be handled by dermatologists trained in radiotherapy and thoroughly familiar with x-ray epilation in order to confine the epidemic. Therapy in the hands of the unqualified may result in persistence of the infection with further spread by contact, directly or indirectly.

* From the dermatologic service of the Jersey City Medical Center, Charles H. Purdy, M.D., Director.

2412 Palisade Avenue

SELECTION OF BLOOD DONORS*

Thomas K. Rathmell, M.D., and Esther L. Bowser, M.T., (A.S.C.P.), Trenton, N. J.

Not every person can be a blood donor. When willingness to contribute blood has been stimulated by relatives or friends, by a common cause, or through publicity, it becomes the duty of the physician in charge of the collecting station to segregate the acceptable donor from the many other applicants. Delegation of this responsibility to technical assistants is not advocated unless they have been properly indoctrinated. This paper will review certain fundamental considerations pertinent to the screening of donors before they are acceptable for bleeding.

Procedures in daily use at the Mercer Hospital Blood Bank, Trenton, New Jersey, will be presented as applicable to any donor, without regard for race or sex, unless specifically noted.

Age: Donors are preferred between the ages of 21 and 35. A person under the age of 21 should never be bled without written consent of the responsible parent or guardian. Donors under 18 years are not acceptable. Aged persons should not be referred to a phlebotomy station for bleeding because of hypertension or polycythemia unless the family physician has seen the donor within the previous twenty-four hours and evaluated his blood pressure status in the light of previous determinations. His findings should be certified in writing to the blood station. Donors of this type should have blood samples collected for determinations of blood urea nitrogen and those showing an excess should be rejected.

Weight: Men should have a minimum weight of 140 pounds; women of 120. If the donor is overweight, it is wise to segregate the well nourished, physically active donor, from the obese, inactive, flabby donor whose myocardium (like his other organs) is practically encased in fat.

Sex: Females are not used as donors during or for five days following the menstrual flow.

Hemoglobin: Hemoglobin of acceptable donors should be greater than 14 Grams per cubic millimeter.

Frequency: Three months should elapse between donations. Donors who have given multiple donations should have their hemoglobin evaluated before being subjected to further bleeding.

Diet: Donors should abstain from food for at least two hours previous to giving blood. A longer period is preferable but may be found impracticable. Those who present themselves without breakfast (having fasted for a period of twelve hours) should consume a light meal and return in two hours for bleeding. This obviates nausea and vomiting which we have otherwise encountered following venesection.

Teeth: Recent extraction of teeth (within two weeks) disqualifies the donor.

Fainting: A donor should be questioned as to whether fainting has been experienced or whether he has ever "passed out". A positive history excludes the donor. Bleeding an epileptic might become a serious problem.

Nervousness: When the donor is a close relative of a patient or is obviously upset, we delay the bleeding until time when the donor will be calm, relaxed, and under no emotional tension.

Miscellaneous: A donor is rejected if he is arthritic, diabetic, drunk, allergic, or if his temperature is above or below normal, or if he has ever had jaundice, rheumatic fever or active tuberculosis.

Pulse Rate: Pulse rate of acceptable donors should be 72 to 80 per minute. A donor with a resting pulse rate of 100 is possibly an incipient or frank hyperthyroid case or otherwise unacceptable.

Blood Pressure: Removal of 500 millimeters of blood from the vascular tree will lower the systolic pressure about 10 millimeters.

Systolic pressure should be within the range of 110 to 160 millimeters. Diastolic pressure should be within limits of 60 to 100. Donors with diastolic pressure over 100 should be rejected. The pulse pressure should have a minimum range of 40 millimeters.

* From the Department of Pathology, Mercer Hopital, Trenton 8, N. J.

A brief inspection of the prospective donor and a short interrogation as to his digestion and physical activity are of inestimable value in acquainting the physician with the ability of the vascular system to compensate for the loss of 500 millimeters of blood within a few minutes and without severe signs of vascular collapse.

Communicable and Contagious Disease: Applicants who have had an upper respiratory infection within ten days are rejected. Acute exanthemata within a three-month period excludes the donor. Those who have had *malaria* are rejected. Those who have resided outside an endemic malarial zone for a period of two years and been asymptomatic are accepted.

Any *venereal disease hisory* causes rejection of the donor. This is further screened by performing a precipitin and complement fixation test on all bloods collected and rejecting *all* positive blood.

A history of typhoid or scarlet fever demands special evaluation in view of possible delayed sequelae. We exclude potential post-scarlet fever nephritics or those with probable biliary or osteomyelitic involvement due to typhoid fever.

Prospective donors should sign a form giving permission for the procedure, and absolving the station personnel of medical and legal liability in the event of reactions.

Donor stations should have the following medications available for instantaneous use.

1. Ampules of aromatic spirits of ammonia.
2. Ampules of caffeine sodium benzoate, each 7½ grains.
3. Adrenalin hydrochloride solution 1/1000, fresh; or in ampules, for hypodermic injection.
4. Apparatus for immediate re-infusion of blood.

We have not followed the time-honored custom of offering all donors a drink of whiskey. A fifteen-minute rest period following the bleeding and a palatable cup of coffee have proved satisfactory.

Proper selection of blood donors will assure them that their welfare is being guarded. This should increase the availability of potential donors and facilitate the therapeutic application of blood transfusion which has now become a universal procedure.

446 Bellevue Avenue

WILL YOU DO SOME PHYSICAL EXAMINATIONS FOR THE NATIONAL GUARD?

The New Jersey National Guard is averaging more than 180 recruits a week, each of whom is required to pass a physical examination before enlisting. Present medical facilities of the Guard are strained by the volume, and assistance is needed.

Medical officers of the Organized Reserve Corps may now earn retirement credits for physical examinations given National Guard enlistees at the rate of one retirement point for each three examinations in any one day.

Examinations require about 20 minutes, and consist of physical inspection (height, weight, coloring, build), general surgical condition, vision, hearing, teeth, mouth, gums, ear, nose, and throat conditions; blood pressure, pulse rates, lungs, and cardio-vascular system.

ORC medical officers, and others able to contribute their services, may obtain further information at Headquarters, 50th Armored Division, NJNG, Armory, Sussex Ave. and Jay St., Newark 4. The telephone number is HUmboldt 2-8220.

THE PUBLIC'S CONCEPT OF THE PSYCHIATRIST

A profusely illustrated discussion of the public's concept of the psychiatrist will feature the next meeting of the N. J. NeuroPsychiatric Association on Wednesday evening, December 21. This will be at 8:45 p. m. at the Academy of Medicine, 91 Lincoln Park, Newark. All physicians are welcome to attend this unusual presentation.

STATE ACTIVITIES

MEMORIAL FOR DR. HENRY C. BARKHORN

At the regular meeting of the Board of Trustees on October 23, 1949, a motion was regularly passed, authorizing a memorial to Dr. Henry C. Barkhorn. Dr. Barkhorn served the Society faithfully and competently in several capacities for many years. His principal contribution was in the work of the Publication Committee of which he was Chairman. The pages of our Journal reflect his industry, enthusiasm and scholarly attainments. Dr. Barkhorn, of his own choice for reasons of health, was never elected to high office in the Society and his name does not, therefore, appear among the list of Fellows. In the circumstances, it seems fitting that some permanent memorial of Dr. Barkhorn's service to the Society be established.

It is proposed that a plaque in the name of the members of The Medical Society of New Jersey be placed on the door of one of the assembly rooms in the new nurses residence of the Presbyterian Hospital, Newark. The plaque will commemorate the service of Dr. Barkhorn to the Society. The selection of this site for the Memorial is especially fitting since Dr. Barkhorn was very active on the staff of the Presbyterian Hospital and took special pleasure in teaching the student nurses.

A fund for the purchase of this Memorial is being raised by voluntary subscription among members of The Medical Society of New Jersey. It is hoped that a large number of our members will wish to participate in this tribute to Dr. Barkhorn and they may do so by contributing whatever amount they wish. Checks should be made payable to The Medical Society of New Jersey, Henry C. Barkhorn Memorial Fund and sent to the headquarters office, 315 West State Street, Trenton 8, New Jersey.

OVERHOSPITALIZATION OF POLIO CASES

The following letter from the medical director of the National Foundation for Infantile Paralysis is published as a matter of interest to all physicians.

Dear Mr. Editor:

During 1949 a poliomyelitis incidence of unprecedented size has put serious financial strain upon the National Foundation for Infantile Paralysis. For the first time in its history it was necessary to conduct a polio epidemic emergency drive which, although helpful, did not entirely meet current needs.

In its purpose to lead, direct and unify the fight against infantile paralysis, the National Foundation undertook support of research and education, for in these areas lie the ultimate hope for eradication of poliomyelitis. These programs are not to be compromised in any way.

The greatest cost to the National Foundation, however, is payment for medical care to patients. It is urgent for all physicians to assist in the institution of measures which will reduce costs without prejudice to patients. Chief costs are for hospitalization. Many poliomyelitis patients are hospitalized when they can be cared for at home at a reduced cost.

Our experience in this year's epidemic which has spared virtually no part of the country suggests the following:

1. Abortive, nonparalytic and mildly paralytic poliomyelitis patients are being hospitalized in the mistaken idea that the isolation period must be in the hospital.

2. Overly prolonged hospitalization is frequent. This is particularly true of the paralytic patient who has achieved maximum improvement from daily physical therapy. Home care with periodic office or clinic visits is then in order.

3. There still exists in some places a general attitude that poliomyelitis is a bizarre disease which only a few physicians can manage. This is not so. It is disturbing, for example, to find physicians leaning so heavily upon the guidance of physical therapists and nurses. The physician's assessment of the total patient is the best index in determining when a patient shall leave hospital to receive home, office or clinic care.

4. Patients hospitalized on general ward services are not charged medical fees ordinarily. When patients are hospitalized on isolation wards for poliomyelitis, however, bills for medical fees are at times submitted. Payment is frequently made by the local chapters of the National Foundation whose treasuries are now generally depleted.

Sincerely yours,

Hart E. Van Riper, M.D.,
Medical Director.

ARE NEW JERSEY RESIDENTS HAVING DIFFICULTY GETTING INTO MEDICAL SCHOOLS?

Do you know of any New Jersey resident who, though scholastically eligible for medical school, has been denied admission during the past three years? If so, here is an opportunity to sound off about it where it may actually do some good. No, this doesn't mean that your medical society will get your son, or your friend's daughter, or your nephew into a medical school. We can't do that because there is no medical school in this state; and we don't, as an organization, have any special influence with any college of medicine. The point, however, is this. Your society is well represented on a state committee investigating the need for a medical school in New Jersey. Now a medical school is an expensive enterprise, and some people say that we don't need such a school here because New Jersey already has a higher ratio of physicians than most other states in the union. This, it has been suggested, indicates that New Jersey men and women who are qualified to study medicine, somehow manage to get into medical schools somewhere. How much validity there is in this thesis has yet to be determined. During the last few years there has been a growing idea that New Jersey residents are more or less discriminated against because nearly every medical school in the country enjoys some kind of tax exemption from its own state and therefore must (by law, custom or courtesy) exercise some preference on behalf of its own state's residents. Since we have no medical school, no New Jersey applicant can be the beneficiary of any such preference.

Your society wants the facts on this problem, and the doctors in New Jersey are in strategic position to furnish those facts. So, if you know of any qualified New Jersey resident who, in spite of superior qualifications, has found the medical schools closed to him, please send the information to the Medical School Survey Committee, care of The Medical Society of New Jersey, 315 West State Street, Trenton.

SUPPLEMENTARY LIST No. 8 TO THE 1949 OFFICIAL LIST

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Caldwell, Delma, Standard Oil Dev'pm't Co.,Eliz.(20)
Coggeshall, Bayard, 20 Elm st., Morristown (14)
Cozzarelli, James J., 219 Belleville av., Belleville (7)
Day, Kenneth L., 14 Elm st., Morristown (14)
DeVivo, John A., 188 S. 6th st., Newark (7)
Devlin, Hugh J., 72 Thomas st., Newark (7)
Hale, Matthew J., 467 High st., Burlington (3)
Hutchinson, Harry F., 209 Passaic av., Spring L.(13)
Ittleman, William S.,307 N.Wash'gt'n av.,Dun'l'n(12)
Kanning, Frederick R., 57 W. Al'nd'le av.,Al'nd'le(2)
Kearney, John V., 335 78th st., North Bergen (9)
Mancusi-Ungaro, Alvin P.,268 Mt.Pr'p't av.,N'w'k(7)
Mann, Benjamin, 527 Amboy av., Perth Amboy (12)
Papera, John J., 8 Washington pl., Caldwell (7)
Reed, Franklin L., Jr., 264 Prosp't st., Westfield (20)
Reynolds, George G., 64 W. Main st., Freehold (13)
Sager, Bernard, 176 Millburn av., Millburn (7)
Tobin, Joseph M., N. J. State Hospital, Marlboro(13)
Tyndall, Alice D., 127 Maple av., Red Bank (13)
Schwartz, Harold B., 3906 Bergenline av.,UnionC.(9)
Smith, Henry G., Essex Co. Hosp., Cedar Grove (7)
Ziegler, James E., 28 Mt. Airy rd., Bernardsville(14)

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Sakson, John, 117 Centre st., Trenton (11)
Shipper, Harvey, 949 Berkeley av., Trenton (11)
Sturman, William A., 219 S. Harrison st., E. Or. (7)
Wagman, Murray, 300 Broadway, Newark (7)

PHYSICAL EXAMINATIONS OF AUTOMOBILE DRIVERS

In an effort to reduce the slaughter of useful citizens because of highway accidents The Medical Society of New Jersey is cooperating with the Commissioner of Motor Vehicles to determine whether the physical condition of the drivers of automobiles is a significant factor in this terrible toll. Through the Advisory Committee on Adult Disease Control two projects are under way:

1. The physical examination of drivers over age sixty-five who have been involved in an automobile accident. As a contribution to the public welfare, members of the Society are asked to perform these examinations, when requested, for a uniform fee of five dollars. This should be a complete physical examination but need not include laboratory tests.

2. The Committee is endeavoring to communicate with the family physician of the driver of every automobile involved in a fatal accident to determine whether the physician was aware of any physical abnormality in the driver. This information will be used only for general statistics by the Committee in an effort to arrive at logical conclusions. *The information will never reach the Commissioner of Motor Vehicles nor any other law enforcement agency* except as an anonymous statistical item and will be considered as a privileged communication. It will in no way be used in any legal processes concerning the accident. If this survey is to be of any value it is important for all members of the Society to respond as completely as possible when information is requested. Many members have already been of great assistance in this regard and we wish to extend our appreciation to them for their cooperation. It is very important that the physicians realize that they are *not* prejudicing their patients' best interests in any way by supplying a full report to the Advisory Committee on Adult Disease Control.

In this connection, your attention is directed to the following recommendations which, on October 23, 1949, were approved by the Board of Trustees of The Medical Society of New Jersey:

That the members of the Medical Society be requested to perform physical examinations on automobile drivers over age 65 who have been involved in an automobile accident for a uniform fee of five dollars. This examination is not to include laboratory work or visual tests.

That the members of the Medical Society be notified formally by the State Society of the survey which is under way in reference to medical conditions which may exist in the drivers of automobiles involved in fatal accidents. The cooperation of the profession should be requested and an expression of appreciation for past cooperation made.

OBITUARIES

DR. HORACE M. FOODER

Dr. Horace M. Fooder of Williamstown, former state senator from Gloucester County, died on October 28 after a long illness at the age of 65.

Dr. Fooder was graduated from Medico-Chirurgical College of Philadelphia in 1908. He had practiced medicine in Williamstown for 40 years and was Monroe Township school doctor for 25 years.

DR. CLARENCE A. PLUME

Dr. Clarence A. Plume of Succasunna, for 20 years president of the Dover General Hospital medical staff, died on October 9 in Wilmington, Del., of a heart ailment.

Dr. Plume was born in Caldwell in 1882. He was a graduate of Long Island College of Medicine. In 1907, after interning at Jersey City Hospital, he began his practice in Flanders, and three years later moved to Succasunna. He was head physician at the Hercules Powder Co. plant in Kenvil, having been on the staff 25 years.

Dr. Plume, who was treasurer of the State Radiological Society and a member of the State Roentgenologist Society, was head of the Dover Hospital x-ray department. He was a life member of the Morris County Medical Society, an honor awarded to those who have been in the organization 35 years or longer.

DR. LOUIS E. WILLIAMS

Dr. Louis E. Williams died suddenly at his home in Madison on October 22. Dr. Williams was born in Canada in 1891. He received his medical degree from Queen's University, Kingston, Ontario in 1913. Immediately after graduation he joined the Canadian Army and later transferred to the English Army. He served with the Grenadier Guards and the Eighth Hussars while on active duty in the Western Front, and was later transferred to South Africa, where he was Commanding Officer of a hospital.

After leaving the Army he served in Harlem Hospital in New York City and then came to Morristown in 1920. He has been active on the medical staff of the Morristown Memorial Hospital and at the time of his death he was head of the obstetrical and gynecological services and one of the senior surgeons in the hospital.

VIEWS AND REVIEWS

Hindsight in Britain The talented and energetic editor of *The American Druggist,* Mr. John W. McPherrin recently conducted a whirlwind survey of five weeks in Great Britain, interviewing physicians, pharmacists, patients, politicians and many ordinary people in regard to Britain's new medical care scheme. Upon Mr. McPherrin's return to the United States, he published a special issue of *The American Druggist* in July 1949 devoted entirely to British state medicine — what it means to America and its pharmacists.

In a brief and eloquent editorial entitled "The State Is My Shepherd", Mr. McPherrin summarized his impressions.

"We came home with new reverence for the faith of mankind that created America. It is our conclusion that there is no hope, peace of mind, or real security for anyone in the belief that 'the state is my shepherd, I shall not want'. This is the real concept of the Welfare State and it has done something to the British spirit. Nothing, not even a free health service, is more important to a nation than the spirit of its people.

"To the extent that any man accepts the doctrine that the state alone can bring him security and happiness, he will lose faith in himself. Nevertheless we must recognize that that false concept has a mesmeric appeal. It is reassuring to know that America is founded upon a radical faith in people, but we dare not be complacent. It is our immediate responsibility to see that no citizen is tempted to lose faith in himself. We must help and inspire each citizen to make himself a useful member of society and thus achieve true security for himself and his family."

One of the many informative and splendidly edited articles published in this special issue is a discussion credited to an anonymous British doctor under the title "These Are the Mistakes We Made". The doctor reviews briefly the historical development of British national health insurance through the original act sponsored by Lloyd George in 1911 and culminating in the National Health Service Act of 1946-1947 which was modeled upon the Beveridge Report.

He points to the all-important fact—unrealized by many American physicians—that the British Medical Association was on record for many years as favoring extension of the original health insurance plan to wives and dependents of employed workers and inclusion of specialist services in its coverage. The British Medical Association did not oppose the National Health Service Act in its entirety, only certain aspects of it. This observer recalls that shortly before the publication of the Beveridge Report in 1942 the B.M.A. had made public a draft interim report of a Medical Planning Commission which had been studying for two years the post-war reorganization of medical services. After the Beveridge Report was issued, the B.M.A. did not proceed to draw up a final version of its plan. "In retrospect", this doctor writes, "this seems to have been a mistake. It was obvious that the government, through the Ministry of Health, would prepare its own scheme and that the medical profession would be drawn into discussion and negotiation on this. . . . If the medical profession, knowing that some kind of state medical service plan would be sponsored by the government, had, thus forewarned, drawn up its own final plan, it would have been in a much stronger position in relation both to the public and to the government after the Labor Party came into power in 1945."

In the opinion of this English physician, the National Health Service Act finally produced by Labor Minister Aneurin Bevan "was, in many respects, more advantageous to the medical profession than the schemes outlined by his Conservative and Liberal-National predecessors".

The principal and, for a time, almost the entire opposition to the new plan came from the general practitioners who attached themselves emphatically to an effort to preserve the custom of buying and selling practices. They believed that in private ownership they would have a strong safeguard against the advent of a full-salaried whole-time medical service.

"In retrospect, and again being wise after the event", this writer says, "one may fairly question the wisdom of this. In the first place, this was a conception not likely to be fully understood by the people and even if understood, one little likely to appeal to them. In the second place, the Conservative Party, as the opposition party in the House of Commons, accepted the proposal to abolish this custom, so the general practitioners found themselves fighting an issue on which they got little support from the community at large or from the members of Parliament sitting on the benches opposite Mr. Bevan and his colleagues".

Again, this writer shows that the organized medical profession in England were further compromised by the fact that between 1940

and 1948 they had accepted the principle that a comprehensive health service should be available to 100 per cent of the population. When such a plan was offered by the government, the doctors were weakened by not having a logical alternative acceptable plan for a comprehensive medical service available to the whole community.

In his concluding remarks which are, perhaps, a direct aside to his American colleagues, this English physician concedes that "The idea would seem to be to make this financial provision (for medical care for the unfortunate) through a system of voluntary insurance. But the problem remains of how to persuade the least well off members of the community to take up voluntary insurance." He warns that "if voluntaryism fails to meet the case, then it is difficult to see how a compulsory system, limited as it may be in the first instance to the lower income brackets, can be avoided; and once the compulsory idea is accepted, it tends, as our history shows, to grow. This is the doctor's dilemma."

Charity Begins at Home

Last month we published a discussion of the problems created by the multiplication of worthy agencies in the field of health and welfare, each of which is conducting its own independent drive for funds. We were inspired to comment on this subject by a strong editorial in the *Bulletin of the Hudson County Medical Society,* whose editor suggested that "big charity" has become "big business" and that, in some cases at least, the technics and emotional tricks employed in raising funds from a gullible public were tending to create public antipathy—to say nothing of confusion and mistrust — which might threaten the whole scheme of voluntary agencies supported by private funds.

This month we have a few more things to say about the same topic. We are moved by an editorial entitled "First Things First" appearing in the *New England Journal of Medicine* for October 13, 1949. Our Yankee colleague, approaching the problem from a slightly different angle, directs his criticism at two disadvantages, as he sees them, in the present set-up. He cites a report of a recent "Greater Boston Community Survey" which contained a protest against the presence of so many uncoordinated fund raising activities "that constitute such a threat to the basic essential services of a community".

These "national power drives appealing to the emotions of a still generous people", he asserts, "are cutting across the supply lines of vital locally organized services of all major communities and are threatening their continued existence".

This is, of course, a universal complaint among executives of Community Chests, most of whom have to rely upon local amateurs for their publicity efforts, whereas they are outclassed and almost submerged by the propaganda of the expertly guided national campaigns of organizations interested in poliomyelitis, tuberculosis, heart disease, cancer—to say nothing of the American National Red Cross.

"The number of worthy appeals has grown to the point where rarely is there a moment in which one or more is not in existence and the now well-publicized plea of the community that begged for a 'leave us alone week' gains added sympathy."

The editor warns that compulsory giving under state control may well supersede our voluntary program unless something is done to halt the non-cooperative methods of the fund raising organizations "that ignore the equal, if not the prior, rights of those charities that begin at home".

What's the answer?

Our Boston colleague suggests that "no more than two intensive campaigns should be tolerated by the people of any community. These should be a community fund drive at one time of the year for the local health and welfare organizations and, as remote from this as possible in point of time, a combined drive for all the other health and relief agencies".

It occurs to us that the profession of medicine whose vital interests would certainly be jeopardized by an enforced nationalization of private charity in the field of health and welfare, should take a hand in rationalizing this situation before it deteriorates to the point where nationalization is the only remedy.

A.M.A. Protests "Gestapo Methods"

On October 6, the Board of Trustees of the American Medical Association issued a public statement at a press conference in Chicago "protesting the use of a police arm of the government—namely, the Anti-Trust Division of the Department of Justice—in a campaign to discredit American medicine and terrorize physicians into abandoning their opposition to compulsory health insurance".

The statement disclosed that 16 state and county medical societies (since that time, 6

more have been added) including the A.M.A. itself, have been made targets for investigations by the Anti-Trust Division of the Justice Department. The A.M.A. statement announced that "the A.M.A. has opened its records to the Justice Department without reservation and medical societies throughout the country undoubtedly will do likewise, but we intend to keep the public fully informed of developments as we are convinced that these are not bona-fide Anti-Trust investigations and that the American people will not tolerate police state methods in this country.

"We would be naive indeed if we ignored the political implications of this sudden rash of investigating, attacking medical societies at a time when the administration is doing its utmost to stifle opposition to its proposed system of government-controlled medical care".

The Board of Trustees pointed out that if the government could succeed in creating its own medical monopoly the inevitable result would be to destroy the hundreds of voluntary health insurance systems which now provide prepaid health care for more than 61,000,000 of the American people. "Certainly it will be a travesty on justice", the A.M.A. statement asserted, "if the Anti-Trust Division of the Justice Department can be used to silence opposition to the creation of a government trust in medicine".

This statement pointed out in detail the remarkable coincidence of events in the development of the A.M.A. Educational Campaign and the various threats as well as the ultimate reality of the investigations now under way. It is recalled that on February 28, 1949, one of the national press associations carried a dispatch from Washington quoting government officials as stating that anti-trust actions would be started against "several" medical societies soon after the compulsory health insurance drive was started in Congress.

The A.M.A. Trustees characterized this development as "an outrageous abuse of public power which far transcends in gravity the issue of compulsory health insurance, vital as that issue is", and they concluded:

"We recognize that politically motivated attacks have been made on many other groups by this division of the government—and we invite their cooperation with American medicine in an effort to alert the American people to the seriousness of this trend toward police state methods. If the police arm of the government is used to intimidate the doctors and others and this abuse of power goes unchallenged it may next be used to terrorize publishers or printers, farmers or grocers, Catholics or Jews, or any other minority in the nation."

Conservator or Cipher?

The *Connecticut State Medical Journal* for November contains a scholarly editorial on the topic of "Conservatism". Acknowledging that the term carries opprobrium, the Nutmeg State editor ascribes as one reason for this the fact that the conservatist is "ever in a bad light for he must always make defense of the present state of things, good and bad. The innovator is under no such compulsion".

Recalling Mr. Webster's definition of the verb "to conserve"—namely, that it is "to keep in a safe or sound state"—the Connecticut editor points out that this is pretty much what we are trying to do in organized medicine. Furthermore, he observes, "it should not be forgotten that our position in the world of scientific medicine hardly has been brought about by any resistance to change".

Quoting Emerson to the effect that the present system, be it what it may, "is not the device of one man, but of all men", our Connecticut colleague examines the position of certain members of the medical profession who have been calling for radical departure from the past and advocating national compulsory health insurance. "Those members of the medical profession who are using their prestige and influence to advocate radical changes in our medical economy have an obligation to look upon the ground upon which they stand, for from thence came their own position in society and their own freedom of action."

There are in our experience two kinds of doctors who present a vital threat to the effort of medicine "to keep in a safe or sound state". First, there are those few but noisy theorists who have allied themselves with the acknowledged enemies of the present system. But far more dangerous is the threat of the vast majority of ciphers—those physicians who talk loud and often, but only to those who agree with them; who protest vehemently against anything which threatens to inconvenience them—but who contribute not one dime with grace, and who devote not one hour willingly to the selfless effort through which alone have we any hope of keeping American medicine "in a safe or sound state".

Are you a conservator, an innovator—or just a cipher?

J. E.B.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

Five pamphlets of the new NCI cancer series are now available. Attractively designed, persuasively written, clearly presented, they provide essential material for lay cancer education. First of the series is a revision of an older leaflet, briefly summarizing basic cancer facts:

1—Cancer, What To Know, What To Do.

The next four were prepared jointly by NCI and the American Cancer Society, and are available from both the Government Printing Office and ACS. These slim vest-pocket size booklets discuss common cancer sites:

2—Cancer of the Breast.
3—Cancer of the Female Reproductive Organs.
4—Cancer of the Digestive Tract.
5—Cancer of the Mouth and Respiratory Tract.

Two more "site" pamphlets will be issued this winter, covering the genito-urinary tract and the skin. Copies of all will be sent to state public health officials. Others may obtain sample copies, prices on bulk orders, etc., by writing to Cancer Reports Section, National Cancer Institute, Bethesda 14, Maryland.

NEW JERSEY CHILD HEALTH SERVICES SET PATTERN FOR THE NATION

Oscar Ewing, Federal Security Administrator, in announcing the White House Conference for 1950 said that the federal program "hoped to accomplish on a nation-wide basis what New Jersey has accomplished on a state level".

Mr. Ewing said that the purpose of the National Conference would be to consider "how we can develop in children the mental, emotional and spiritual qualities essential to responsible citizenship".

GLOUCESTER COUNTY FORMS HEALTH COUNCIL

Roland A. Esbjornson, Pitman, was elected temporary chairman of a proposed Gloucester County Health Council at a meeting held at Glassboro. Mrs. N. A. Pippel, Glassboro, was elected temporary secretary.

Wilson I. Nicholson, Woodbury, director of old age relief in Gloucester County, presided at the meeting and the speakers were Dr. Daniel Bergsma, State Commissioner of Health, who was introduced by State Senator Harold W. Hannold and Ralph T. Fisher of the State Department of Health.

Dr. Bergsma reported that health councils are being organized in a number of counties and some of the larger towns of the state. He further stated:

"We have been attacking many health problems in New Jersey and in our various communities on a divided basis. One community group becomes particularly interested in one cause of illness or death and they develop a program for that particular disease. A different group is interested in another part of public health and they develop a program in that field. Many of those programs have been highly successful within their chosen fields and have made significant contributions to public health in New Jersey. We lack, however, in most of our communities, the impetus and leadership of an organization which can be concerned with community public health as a whole rather than one of its individual parts. We lack also, in some of our communities, a method of bringing together these diverse and independent forces for good in public health. Fortunately, there is a device for bringing together these community elements."

Dr. Bergsma recommended the formation of a Gloucester County Health Council but cautioned that any action taken at the meeting should be regarded, not as the organization of a council but just as the first step toward that goal.

"The community health council or planning committee is fast gaining acceptance as an instrument for marshalling the interest and support of the citizens. Through such councils the professional groups, the official and voluntary health agencies, civic organizations and interested citizens are being brought together to coordinate their individual efforts and cooperate in developing plans and activities which will result in improved public health programs."

COUNTY SOCIETY REPORTS

BURLINGTON COUNTY

Freeman W. Metzer, M.D., Reporter

The regular meeting of the *Burlington County Medical Society* was held on October 13, at the Riverton Country Club. DR. E. VERNON DAVIS, president, called the meeting to order.

We again had the pleasure of hearing DR. GARFIELD G. DUNCAN, who is professor of Clinical Medicine at Pennsylvania Hospital and Jefferson Medical College. His topic was "Diagnosis and Treatment of Liver Diseases" and was limited to a very complete presentation of hepatitis, both homologous and epidemic types, covering its diagnosis, clinical course, complications and treatment.

Dr. W. E. Bray, chairman of public relations committee, presented an outline for the coming year. Emergency medical service is again to be left to the physicians of each community. The public relations committee wants to work with the Committee of 21 for the coming year. An effort will be made to supply speakers whenever requested by the various lay organizations of the county.

It was reported that both hospitals in the county were receiving blood from the Red Cross.

A resolution in memory of DR. RUSSELL GEARY was read. The resolution was incorporated in the minutes and members of the family are to be duly notified.

A plan for enlarging the facilities of our Welfare Home was discussed along with the suggestion for unification and simplification of its administration. No definite action has been taken as yet.

The regular meeting of the *Burlington County Medical Society* was held on November 10, at the Riverton Country Club. Dr. Davis, president, opened the meeting at 9:00 p. m. The speaker was DR. A. E. RAKOFF, endocrinologist to the Laboratory of Jefferson Hospital, Philadelphia. Dr. Rakoff gave a complete and concise talk on "The Adrenal Cortex".

The public relations committee chairman announced that instead of a single Public Health Exhibit and Forum held daily in Burlington during Public Health Week in New Jersey, as was done last year, there is to be a Forum on five different subjects. The subjects chosen are diabetes, arthritis, pediatrics, cancer, and hospital management. Each subject is to be discussed in a different town in the county. It is planned to have one moderator and four other physicians on each panel discussion.

The following applicants were approved by the Board of Censors and were unanimously elected members of the county society: DR. ROBERT W. ELWELL, of Delanco, and DR. RALPH H. VAN METER, of Moorestown.

A committee comprising Drs. Marks, Leonard, Wildeman, Viteri, and Davis was appointed by the president to aid in any work required by the Cerebral Palsy League.

The president appointed a panel of three physicians—Drs. Hornberger, Peacock, and Metzer to review all cases of temporary disability which need consideration.

CAMDEN COUNTY

L. G. McAfoos, Jr., M.D., Reporter

With DR. MALDEIS presiding, the *Camden County Medical Society* held its second meeting of the season at the Dispensary Building, Camden, November 1.

DR. VINCENT J. PISCIOTTA, who was elected at the October meeting, was presented to the Society after taking the oath of membership and signing the roll book.

The chairman of the city and county welfare committee, Dr. A. G. Pratt, announced that a Visiting Nurse Association was being formed in the City of Camden.

Dr. E. R. Ristine, chairman of the public relations committee, familiarized the Society with a communication from the Camden County Pharmaceutical Association advising us that they had created a professional relations committee, and suggested that we parallel this action so that our mutual objectives can receive the benefit of coordinated activity where advisable.

The meeting was then turned over to Dr. Paul Mecray who introduced the speaker of the evening, DR. BENJAMIN H. GOTTESFELD, of the Clinical Department on Alcoholism, Yale University. Dr. Gottesfeld presented a very brilliant and extremely interesting paper on *Alcoholism and Clinical Procedure in Dealing with the Problem.* Dr. Denbo discussed the paper and commented on the unique and beautiful way in which Dr. Gottesfeld presented a difficult problem.

Dr. Stanley Brown extended an invitation to all members to attend the dinners given prior to the regular meetings on the occasions when we have out of town speakers.

The president made announcements of Dr. Norton's request to speak before our Society, and the date of the American Medical Association's Third Annual Clinical Session December 6 to 9 in Washington, D. C.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The Annual Social Session and Ladies Night of the *Gloucester County Medical Society* was held at the Woodbury Country Club, October 20. A large gathering of medical men with their wives and friends were in attendance at this gala affair as President J. PAUL BURKETT acted as toastmaster.

In the absence of Dr. James F. Norton, president of The Medical Society of New Jersey, MR. JAMES

BRYAN, executive officer of the State Society, spoke about several phases of our activity in the A.M.A. and state educational program.

Then followed brief talks by State Senator HAROLD HANNOLD and Assemblyman HUGH MEHORTER, the latter emphasizing the importance of our fight against socialized medicine as being just the beginning of the fight against socialization of all activities in this country.

At the conclusion of a delicious dinner the entertainment was on the lighter side. MICKEY MACDOUGALL, "Card Detective" really gave us a lesson in poker and bridge and showed how the card sharps operate. Dr. LaRosa almost got away with dealing one off the bottom of the deck to MacDougall, but the detective caught him. The meeting adjourned at a late hour.

MIDDLESEX COUNTY

William M. Winn, M.D., Reporter

The regular monthly meeting of the *Middlesex County Medical Society* was held on October 19, at the Roosevelt Hospital, Metuchen. The meeting was called to order by DR. H. P. FINE, vice-president, in the absence of Dr. Clarke, president, who was attending an F.A.C.S. meeting.

The minutes of the May meeting were read and approved.

The medical ethics committee report was given by Dr. Benjamin Mann. DRS. W. S. ITTLEMAN of Dunellen and EDWARD JASIONOWSKI of Sayreville were admitted to regular membership from associate membership. DR. M. WAGMAN of Metuchen, was admitted to regular membership on transfer from the Essex County Medical Society.

Dr. Kohut, treasurer, reported that the 1950 Medical Society of New Jersey dues will be $30.00 plus the County Medical Society assessment of $18.00, making the active membership assessment $48.00; and the associate membership will be as before $18.00.

It was voted to sell the stock held by the Society in the New Brunswick Trust Co. through a brokerage office in New Brunswick, and negotiations to this effect are now under way.

Dr. Fine commented on the A.M.A. special $25. assessment. About 25 per cent of the membership have not yet paid and he requested that they forward the special assessment to the county medical society treasurer immediately.

Program committee report was made by Dr. Sandella. The November meeting will be a joint meeting with the County Pharmaceutical Association and will be held at Oak Hills Manor, Metuchen. It is planned to have a buffet supper, with the Pharmaceutical Society as guests. Following a discussion from the floor, a motion was unanimously passed that all expenses of the joint meeting be borne by the county medical society, and the treasurer was instructed to meet such bills as the program committee presents to him. Dr. Sandella further announced that the annual dinner meeting will be held on December 21 at Oak Hills Manor.

Dr. Fine announced the appointment of the 1949 nominating committee by Dr. Clarke. This is to be composed of Dr. H. Dieker, South River, chairman; Dr. John H. Rowland, New Brunswick and Dr. Charles H. Calvin of Perth Amboy.

The appointment of Dr. I. J. Cooper to the Conservation of Vision and Hearing Committee was also announced.

Dr. John S. Van Mater reported for the 1-10-20 Committee. Captains have been appointed according to geographical areas and one member of the Woman's Auxiliary has been appointed to each team. A number of talks have been given to various organizations. The committee feels they are making progress although there is a great deal of apathy to overcome on the part of the public.

Dr. Fine introduced the speaker of the evening, DR. JAMES F. NORTON, president of The Medical Society of New Jersey. Dr. Norton gave an interesting talk on socialized medicine and the problems confronting the medical profession. He emphasized the need for the individual doctor to inform the public on the inherent dangers of socialized medicine and to where it might lead. Also stressed was the part the voluntary insurance plans were playing in meeting the needs of the public and that these plans should be utilized to even a greater extent than they have been.

Dr. Norton then answered questions from the floor, following which the meeting was adjourned. A collation was served in the Hospital Dining room.

MORRIS COUNTY

Theodore R. Failmezger, M.D., Reporter

The Chilcott Laboratory Division of The Maltine Company, of Morris Plains, was host to the regular meeting of the *Morris County Medical Society* on October 20. DR. STANLEY TESKEY, the newly elected president, presided.

After a short business meeting during which a few minor discussions centered around the report of the Executive Committee, and after everyone was urged to support the committee upon which he was appointed, Dr. Teskey presented the guest speaker, DR. SYDNEY RUBENFELD, associate professor of Radio Therapy at New York University. Dr. Rubenfeld has just returned from a month's stay at Oak Rige and talked on "The Use of Isotopes in Medicine Today". He began his topic with a discussion about the physical chemistry and manufacture of isotopes at Oak Ridge. He stressed the value in biological research rather than their present clinical value in treatment.

Refreshments were served at the close of the meeting.

SUSSEX COUNTY

John E. Longnecker, M.D., Reporter

The October meeting of the *Susscx County Medical Society* was held at the Village Inn, Franklin, N. J., on October 11. Postgraduate education was discussed and it was decided to conduct a series of lectures as has been done in previous years.

The One-Ten-Twenty Committee report was given by Dr. Spencer. A lively discussion followed and the plan as offered was adopted by the society. The group captains appointed were Drs. Longnecker, Lushear and Catlett. Resolutions stating the society's position relative to "Compulsory Health Insurance" were drafted and the secretary ordered to dispatch them to appropriate individuals in the government.

Dr. H. Vinton Coes, Jr., and Dr. Robert F. Ficker were accepted into membership in the society by transfer from Essex County and Passaic County respectively.

There was a lively discussion on the attitude of the society toward the screening program of the State Department of Health, particularly regarding the mobile unit mass x-ray survey. It was finally voted to notify the local tuberculosis league that it should use its own judgment in the degree to which it should go in its support of the Health Department Tuberculosis Screening Program, but that the Sussex County Medical Society continues to disapprove in principle the practice of state medicine.

Dr. R. A. Weinstein was appointed legislative keyman of the society.

UNION COUNTY

E. M. Satulsky, M.D., Reporter

The annual outing of the *Union County Medical Society* was held on September 28, at Touchon's Grove, Stirling. Eighty members and guests attended and spent an enjoyable day. Under the chairmanship of Dr. Frederic W. Lathrop, the president, a short business meeting was conducted.

On recommendation of the membership committee the following applicants were elected to full membership: Dr. Franklin L. Reed, Jr., of Westfield; Dr. D. W. Caldwell, Standard Oil Development Company, Elizabeth, was accepted as a transfer from Cook County (Illinois) Medical Society; Dr. Robert M. Donauer of Springfield was accepted as a transfer from the Essex County (N. J.) Medical Society.

A vote of thanks was extended the many pharmacies, pharmaceutical companies and friends who donated door prizes.

The *Union County Medical Society* sponsored and conducted a very successful Public Health Week Program held at the following places: Summit Senior High School, Summit, November 1; Young Women's Christian Association, Plainfield, November 2; Alexander Hamilton Junior High School, Elizabeth, November 4.

The honorary chairmen were the mayors of these communities. General chairmen were: Dr. L. H. Leggett, Jr., chairman of the public health committee, and Dr. W. H. McCallion, chairman of the public relations committee. District chairmen were: Drs. G. McK. Stevenson, Summit; N. W. Crane, Plainfield; P. J. Kreutz, Elizabeth. The committee for exhibits and motion pictures was composed of Drs. E. M. Satulsky, of Elizabeth, chairman; W. J. Hallock of Summit; George Marts of Plainfield; G. C. Newbury of Cranford and Summit; Harry Hansen of Plainfield; Sol Berman of Elizabeth. The publicity committee was composed of Drs. McCallion, B. J. L. Sauerbrun of Elizabeth, N. S. Deutch of Plainfield; C. C Carpenter of Summit; and Dr. Leggett. The many exhibits and motion pictures were interesting and well-prepared. The evening programs were different in each community: "Children's Diseases" was the subject in Summit and the speakers were: Drs. C. J. Strauss, F. I. Krause, A. F. Ackerman, and Evelyn Holt; in Plainfield "Heart Disease" was the subject and the speakers were: Drs. Joseph M. Gannon, James M. Lyery, E. Raymond O'Brian and Samuel H. Schwartz; in Elizabeth the subject was "Cancer" and was presented by Dr. William O. Wuester.

The committees in each community received fine cooperation from the American Red Cross, Chamber of Commerce, Board of Health, Board of Education, American Cancer Society, National Foundation for Infantile Paralysis, Union County Tuberculosis and Health League and the various hospitals. This intensive program is only part of the activities of the Union County Medical Society. We have just completed a series of talks on various medical subjects through the facilities of the FM station in Elizabeth and are sponsoring (and paying for) a series of broadcasts on medical subjects and socialized medicine through the FM station in Plainfield.

The Elizabeth General Hospital was host to the *Union County Medical Society* at its regular meeton November 9, 1949. Dr. Frederick W. Lathrop, the president, called the meeting to order at 9 p. m. The meeting was addressed by Dr. James F. Norton, president of The Medical Society of New Jersey, who reviewed some of the activities of the past year and discussed plans for the future. The Union County Medical Society went on record unanimously recommending the name of Dr. Herschel Murphy of Roselle, as its candidate for second vice-president of The Medical Society of New Jersey at the next annual meeting in Atlantic City.

On recommendation of the membership committee, the following applicants were elected to full membership: Drs. William J. Belliveau, Springfield; Rosemary Gorman, Elizabeth; Worth W. Henderson, Plainfield; Nathan S. Kline, Summit; George M. Longbothum, Plainfield; John A. Olson, Cranford; Kaspar J. Price, Elizabeth; Dudley A. Roberts, Westfield; Williams R. Simonds, Plainfield; Charles Elyght, Rahway.

The essayist of the evening was Dr. Charles Ragan, assistant attending physician, Presbyterian Hospital, New York; assistant professor of Medicine, Columbia University College of Physicians and Surgeons, New York. Dr. Ragan spoke on *The Response of Rheumatoid Arthritis and Other Diseases of the Connective Tissue to Adrenocorticotrophic Hormone of the Pituitary.* An interesting discussion followed.

BOOK REVIEWS

Diseases of the Liver and Gall Bladder and Bile Ducts. By S. S. Lichtman, M. D. 2d ed., rev. Pp. 1135. With 147 illustrations and 2 color plates. Phila., Lea & Febiger, 1949. ($18.00)

Interest in liver disease has quickened markedly in the last decade. Responsible for this in part was the large number of cases of hepatitis in the armed services during the War. We would also remark on the increasing knowledge of the histopathology of the liver due to the aid of liver biopsy and peritoneoscopy coupled with the reliability of the liver function studies. Much has happened, however, in the field of liver diseases even since Dr. Lichtman's first edition some years ago. For this reason the book has had to undergo radical revision. The most extensive changes are in the chapters on inflammatory diseases. Some 150 pages are devoted to a discussion of cirrhosis which adequately covers the subject. Shorter chapters cover hemolytic jaundice, new growth, cysts and abscesses. The liver is also discussed in relation to the thyroid, pregnancy, the metabolic diseases, and cardiac disease. The chapter on the liver and the hemopoietic system is, perhaps, a bit too short.

About 122 pages are devoted to the diseases of the gall bladder and bile ducts, with a discussion of the anatomy and physiology of the biliary system followed by consideration of each disease.

Lichtman's work is an exhaustive treatise on the liver and the biliary system.

The bibliography following each chapter is very extensive. It is well illustrated. It is a book obviously recommended to both the internist and the gastroenterologist.

Andrew J. V. Klein, M.D.

Stedman's Medical Dictionary. Edited by Norman Burke Taylor, M.D. Ed. 17. Williams and Wilkins, Baltimore, 1949. (1361 pages). ($8.50)

Like most practitioners, I still have the medical dictionary I bought as a freshman medical student, back in the days before atomic bombs and penicillin. It no more occurred to me to get a new dictionary, than it did to buy a new anatomy book. But hefting this neat leatherette-bound volume in my hands, and leafing through its clearly printed pages, jolted me into realizing that an up-to-date medical dictionary is as necessary as a modern blood pressure instrument.

Stedman's of course, is one of the three old reliables of medical lexicography. This one has an interesting chapter on medical etymology, with a unique root-word list, that makes possible an at-sight understanding of many medical neologisms. Scattered throughout the book are drawings which, in the aggregate, make up a modest anatomic atlas. The appendix includes weights and measures with handy conversion tables; a list of pathogenic parasites with both the common and Latin names; and a transliteration table for several anatomic nomenclatures.

Illustrations — particularly the numerous color plates — are good. The definitions vary in adequacy, and one suspects that there was little consultation with specialists. For instance, "an unreasonable or insane fear" is a layman's definition of *phobia*: a psychiatrist would make clear that phobias are not evidences of insanity. In the more specialized fields, there are other instances of definitions that are not quite up-to-date. And it is always frustrating to find a cross reference in lieu of a duplicate definition. Thus, Phoca's Disease is defined only as Tillaux's Disease—certainly not very helpful since it sends the reader (probably swearing by now) to the "T" section. It would have taken very litle space to add that it was a form of mammitis. The book clings to the obsolescing terminal "—al" of adjectives like "pathological" or "anatomical", not even recognizing the modern "—ic" ending as an alternative. And in giving preference to such spellings as "amoeba" (rather than the American form "ameba") it reflects its British ancestry.

However, perfection is found only in the vocabulary portion of dictionaries. All-in-all, Stedman's is a solid semantic tool for the practicing physician.

Victor Huberman, M.D.

Clinical Biochemistry. By Abraham Cantarow, M.D., and Max Trumper, Ph.D., 4th ed. Pp. 642. Phila., W. B. Saunders Co., 1949. ($8.00)

This latest edition by Cantarow and Trumper will find a welcome place in the libraries of those interested in the clinical aspects of physiologic chemistry. The complete range of biochemistry from carbohydrate metabolism to endocrine function is covered in the usual clear and readable style of these authors. The theoretical background of each subject, e. g. renal function, hepatic function, acid-base balance, etc., is set forth concisely, followed by more extensive consideration of the clinical aspects of the various chemical determinations.

The authors have fairly and honestly stated in the preface of this edition those sections which have been revised and those topics which are newly presented. Aside from these sections, the book is essentially a verbatim copy of the revised third edition. The last chapter contains a list of metabolic disorders with their important biochemical alterations. In the new edition, the table of normal chemical values has been shifted to the inside of the back cover.

R. D. Goodman, 2nd, M.D.

Hematology; for Students and Practitioners. By Willis M. Fowler, M.D. Rev. 2d ed. With a chapter by Elmer L. DeGowin, M.D. Pp. 535. New York, Paul B. Hoeber, Inc., 1949. ($8.50)

Hematology, a complex subject at best, is adequately covered in this textbook. The chapters dealing with transfusion of whole blood and the hematopoietic system are exceptionally good. The rarer diseases, such as the lymphomas and myelomas, might have been presented more thoroughly. For the student and practitioner alike, this book is of value; as a reference work, however, the reviewer finds it too sketchy.

D. J. Lehman, Jr., M.D.

Book Reviews continue on next page.

Fundamentals of Otolaryngology. By Lawrence R. Boies, M.D. Pp. 443. Philadelphia, W. B. Saunders Company, 1949. ($6.50)

Boies and his associates have compiled a new text-book which takes a definite position in the ear, nose and throat literature by reason of its brevity, clarity, facility of reading, comprehensiveness and applicability to the physician and medical student. The presentation is logical and precise, omitting theoretical opinions. Diagrams are excellent with direct and understandable labelling.

The text is up to date regarding antibiotics, sulfa drugs, and recent allergic and surgical concepts.

The anatomic descriptions will be found most helpful in their systematic orderliness and their omission of detailed minutiae. Applied anatomy is carefully related to clinical findings. Basic physiology and pathology are accurately presented.

An outstanding feature is the list of references at the end of each chapter which include the most prominent and recent articles in each field.

To the otolaryngologist the "Fundamentals" may seem elementary, but he will enjoy its readability and well-taken and stressed highlights. To the general practitioner, internist and medical student it will be a most welcome and useful addition.

Fundamentals of Otolaryngology is aptly named and has a definite place in medical literature.

ARTHUR DINTENFASS, M.D.

Cardiovascular Disease; Fundamentals, Differential Diagnosis, Prognosis and Treatment. By Louis H. Sigler, M.D. Pp. 551. New York, Grune & Stratton, 1949. ($10.00)

Cardiovascular Disease is another one of many texts on heart disease offered to the profession. Its thirty-one chapters bring to the reader a wealth of material which only twenty-five years of experience in this field could embody. The book devotes a great deal of space to physiologic phenomena related to clinical cardiology. There are also detailed discussions of anatomy and pathology which obviate the necessity of referring to separate texts on these subjects. Chapters on the relationship of pregnancy and surgery to cardiovascular disease are outstanding.

The chapter on congenital heart disease is too brief in view of the many advances made in this field recently. The chapter on cardiovascular abnormalities encountered in endocrinopathies is too sketchy and one gains the impression that the author is laboring in a foreign field. Another glaring defect in the book is the lack of attention to electrocardiography. Any book on cardiology should devote space to electrocardiography in greater detail. This deficit is explained by the author who tells us that he has written another text on electrocardiography. Does this imply that one should buy his companion book on electrocardiography?

The book is well-written and should prove valuable to the general practitioner or the general internist. The reviewer does not recommend it for the cardiologist.

MARVIN C. BECKER, M.D.

America's Health: A Report to the Nation. By the National Health Assembly. Introduction by Oscar R. Ewing. Pp. 395. New York, Harper & Brothers, 1949. ($4.50)

Federal Security Administrator Ewing had been requested by President Truman to prescribe a ten-year health plan for the nation. He called 800 representatives from the American Medical Association, farm groups, organized labor, the cooperative health federations and others, to meet in Washington in May 1948. This group was divided into 14 sections, each to consider one important phase of health. The group agreed that health standard cannot be raised without taking into account education, housing, nutrition and the basic standard of living.

They recommended the following: Periodic analysis of needs and demands for medical, dental and public health services; education of all types of medical and public health personnel; better hospitals and other inducements to attract personnel to rural areas; expansion of the Survey and Construction Act and the integration of the Veterans Administration hospital plan; inauguration of a national education program to consider health problems; formation of advisory committees to health officers; more effective smoke abatement, refuse and sewage disposal; rehabilitation of chronically ill, especially the retraining of handicapped to help them become socially and economically acceptable. These and many more recommendations were offered and well received.

It was only when the economic problem arose that controversy ensued. Who shall pay the costs? Should an insurance plan carry more of the burden? Shall special grants be issued? Should tax supported services be provided for all children, or only for those whose parents pass a "means test"? They argued on medical insurance plans similar to social security, where matched funds flow from the federal to the state level: expanded, privately owned, voluntary health insurance plans; support by general taxation, both federal and local; and combinations of these. They agreed it was sound practice to prepay medical costs but could not concur on whether this should be "voluntary" or "compulsory".

Those in favor of the "voluntary" felt that if payments were compulsive, government would dictate fees and local medical care. Those favoring "compulsory" held that federal aid could be allocated to state health departments, which in turn would dispense fees to doctors, and that the patient would have free choice and there would be a high degree of professional freedom.

Physicians will want to read this report, as well as articles and opinions of other reporters. Full understanding will equip us to take the leadership in bringing about a high standard of medical care for all.

HENRY SIMON, M.D.

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TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXII **December, 1949** **No. 12**

AS THE mortality from tuberculosis continues its downward trend the question of whether or not it will finally be eradicated becomes less speculative and more practical. This question was asked and answered by Wade Hampton Frost in 1937 and his answer now has been reviewed with the added experience of the last ten eventful years.

IS AREA ERADICATION OF TUBERCULOSIS POSSIBLE?

Wade Hampton Frost in 1937 presented a thoughful appraisal of the question "How Much Control of Tuberculosis?" After marshalling the available evidence, he concluded that in this country we had already reached a stage at which the biological balance was against the survival of the tubercle bacillus and that eventually this disease would disappear.

A British opinion of the same year was: "It is idle to speak of the conquest of tuberculosis; tuberculosis has not been and so far as one can see never will be conquered." This opinion was endorsed recently by Medler who found many tuberculous pulmonary lesions unrecognized during life in persons in the older age groups coming to autopsy in New York City.

The question of the validity of Frost's thesis is of great practical as well as theoretical importance. His reasoning was briefly this: There were many and sound reasons for doubting that the rapid decline in tuberculosis in the preceding half century had been due *principally* to the measures which had been taken for the purpose of preventing infection. Without question the factors lumped together under the terms "advancing civilization and better living conditions" had played an important role. There was reason to believe, however that the decline was due *in some part* to the efforts made to control the disease.

The direct attack has proved to be a more formidable undertaking than was at first realized, but in Frost's words: "If the effective control of tuberculosis required *complete* isolation of *all* open-cases, . . . the present (i.e., 1937) status could not be considered encouraging, for . . . (many) such cases are discovered in a fairly advanced stage, and the isolation even of cases known to the authorities is probably less than 50 per cent complete. However, for the eventual eradication of tuberculosis, it is not necessary that transmission be immediately and *completely* prevented but only that the rate of transmission be held permanently below the level at which a given number of infection-spreading cases succeed in establishing an equivalent number (of 'open' cases) to carry on the succession. If the number of infectious hosts is continuously reduced, the end result . . . must be extermination of the tubercle bacillus."

He placed a single qualification upon his conclusion that "As to the maintenance of this balance, favorable to us, unfavorable to the tubercle bacillus, there are, of course, elements of uncertainty, among them uncertainty as to the stability of our civilization."

Only 12 years have passed—too short a period upon which to base inferences in regard to long-time trends—during which the very existence of civilization has been threatened. The world has undergone one of the greatest military, social, and economic upheavals in history. It is, therefore, pertinent to review the experience of this decade and inquire whether the Frost thesis is still tenable.

Despite their limitations, mortality rates provide the best available index of the biological balance

over long periods of time. During the war years, mortality from tuberculosis increased in most of the western European nations involved in the conflict, while those countries that escaped the rigors of war were little affected. In western Germany the rate is still higher than in 1938. In Belgium and the Netherlands, as in England and France, the rate rose during the war, but by 1946 was already down to or below the 1938 level. In Denmark, Sweden, Switzerland and the United States, mortality continued downward during the war.

It appears, therefore, that the disturbances due to the war have been insufficient to effect more than a temporary setback in declining death rates. It would appear then that, where civilization is relatively advanced, the biological balance is still against survival of the tubercle bacillus.

To what extent this is due to indirect socio-economic causes or indirectly to control measures is still a difficult question to answer. In the United States, progress has been made toward more effective measures of control despite the war. In the field of specific therapy the most important contribution was, of course, the discovery of streptomycin which is now receiving extensive clinical trial. Experience with it thus far gives hope that eventually an antibiotic may be discovered which will suppress growth of the microorganism in the tissues and rapidly terminate the infectious state in pulmonary tuberculosis. With such an agent, the seedbed of the disease could be more rapidly reduced.

The search for a practical and effective method of artificial immunization has progressed. The techniques related to the use of BCG vaccine have been improved and its safety established. Critical trials support the judgment that this procedure affords some protection against post-primary tuberculous lesions for at least a limited period. Its long-range effect in reducing the incidence of pulmonary tuberculosis has yet to be determined. In the United States, BCG is still under investigation.

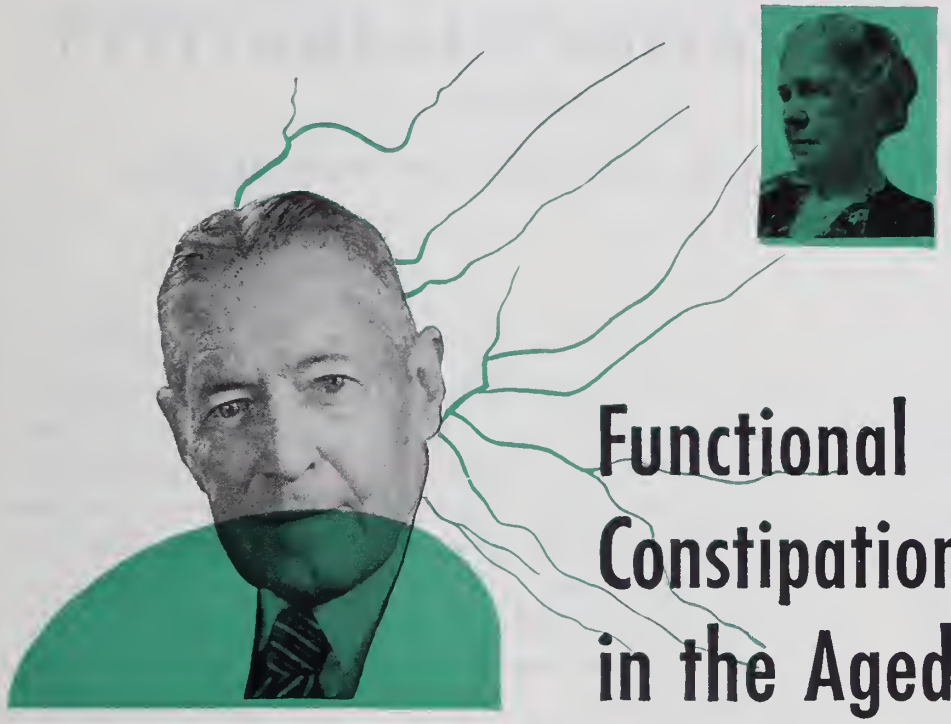
Thus, the past ten years have brought forth no really new principle of prevention. The main objective is still avoidance of exposure, and the strategy is still that of a frontal assault on discoverable sources of infection. Progress has also been made in "case finding" and isolation. The tools used in diagnosis have undoubtedly been sharpened.

While there are still manifest deficiencies in the preventive program, it is better than it was a decade ago. There are reasons for believing it is progressively reducing the frequency of transmission from infected to non-infected individuals.

Granting continuation or strengthening of control efforts in addition to favorable socio-economic developments in a world at peace, it would seem not unreasonable to expect that the balance, favorable to us, unfavorable to the tubercle bacillus, will be maintained and that the decline in mortality from tuberculosis will be sustained, even to the point of disappearance from some areas. There is nothing in the record up to date that is inconsistent with Frost's thesis.

Is Area Eradication of Tuberculosis Possible? Editorial, American Journal of Public Health, June, 1949.

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Communications: Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of any material in *The Journal*. All such communications should be directed to the Editorial Office of *The Journal*. The Publication Committee reserves the right to publish, reject, edit or abbreviate all communications submitted to it.

Contributions: Manuscript submitted to *The Journal* should be typewritten, double-spaced on letter-size (about 8½ by 11 inch) paper, and forwarded to the Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not; and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal*. Galley-proofs of edited or abbreviated manuscripts will be submitted to authors for approval before publication. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. Authors are required to submit original copies only, and are urged to keep carbon copies for reference. It is understood that material is submitted here for exclusive publication in this *Journal*.

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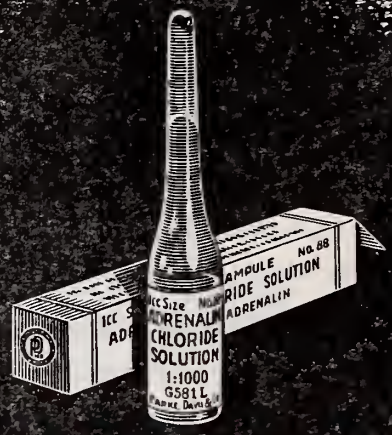
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THE OFFICIAL TRANSACTIONS

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MINUTES OF THE HOUSE OF DELEGATES

Tuesday Morning Session—April 26, 1949

Meeting of the House of Delegates at the 183rd Annual Meeting of The Medical Society of New Jersey, convened at 10:20 a. m., Tuesday, April 26th, 1949, at the Ambassador Hotel, Atlantic City, N. J., President J. Howard Hornberger, M.D., Roebling, N. J., presiding.

PRESIDENT HORNBERGER: The meeting will please be in order. It is very gratifying to me to welcome you members of the House of Delegates to this, the 183rd meeting of The Medical Society of New Jersey. We trust that your stay with us will be both pleasant and profitable. We have arranged a very outstanding program of scientific discussions. The commercial and scientific exhibits are of the highest order. We trust that you will visit them and show your interest in them.

I want to take this opportunity to express my personal appreciation to Mrs. Madden, our Convention Manager, for the very fine work that she has done in getting this convention in order. She deserves a great deal of credit for the effort that she has put forth.

I am very sorry to have to announce to you that our good Secretary, Dr. Earl LeRoy Wood was taken suddenly ill, last night, and will not be with us this morning. In his place I have asked to serve as secretary, *pro tem*, Dr. William E. Bray, Chairman of our Public Relations Committee.

I would now like to ask Dr. Watson B. Morris, Chairman of the Reference Committee on Credentials, to give us his report.

DR. MORRIS (Reference Committee on Credentials): The Registration Office reports 147 delegates present at ten o'clock this morning.

PRESIDENT HORNBERGER: Mr. Secretary, do we have a quorum present? A quorum consists of twenty delegates, from four different component societies.

SECRETARY PRO TEM BRAY: We do have, sir.

PRESIDENT HORNBERGER: A quorum being present, this meeting of the House of Delegates will be in order. Dr. Thomas K. Lewis will act as Parliamentarian for this session of the House of Delegates.

The Minutes of the 1948 Session of the House of Delegates were published as a supplement to the August 1948 JOURNAL of The Medical Society of New Jersey.

It was moved by Dr. Allman, seconded by Dr. Morris, that the minutes of the 1948 Meeting of the House of Delegates be approved as published in the JOURNAL of August 1948.

(Put to a vote and carried.)

The report of your President is published on page 179 of the April JOURNAL. The President has no supplemental report at this time. The report will be referred to Reference Committee "A". Do you, Mrs. Madden or Mr. Bryan have any supplementary report from our Secretary?

MRS. MADDEN: No. sir.

PRESIDENT HORNBERGER: There being none, the report of the Secretary as published on Page 181 of the April JOURNAL will be referred to Reference Committee "A".

Our Treasurer's report was published on Page 180 of the April JOURNAL. Does Dr. Young have a supplemental report to offer at this time?

DR. GEORGE J. YOUNG (Treasurer): Mr. Chairman, Members of the House of Delegates: At the last meeting of this House, you aproved the recommendation of the Reference Committee that I report to you not only for the fiscal year, but also on a calendar year basis. Since this is the first year following that recommendation, I will present to you a report for the fiscal year beginning June 1, and for the calendar year through December 31.

Cash on hand, June 1, 1948	$120,918.65	
Receipts, June 1-December 31, 1948	29,076.99	
Total		$149,995.64
Expenditures, June 1-December 31, 1948		71,019.35
Balance, December 31, 1948		$ 78,976.29

The report for the fiscal year, June 1, 1948 - April 20, 1949, is as follows:

Cash on hand, June 1, 1948	$120,918.65	
Receipts, June 1, 1948 - April 20, 1949	223,581.12	
Total		$344,499.77
Expenditures, June 1, 1948-April 20, 1949		112,141.87
Balance, April 20, 1949		$232,357.90

Assessments received from membership for use for next fiscal year, June 1, 1949-May 31, 1950 ..... $ 65,137.33

The figures just presented to you were those of actual cash which we received and spent.

There are other items which merit your attention:

1. Permanent Capital Fund.	$ 15,065.25
2. Permanent Home Reserve.	14,781.65
3. Annual Meeting Reserve.	10,158.85
4. Special Reserve Fund...	5,000.00
5. A. M. A. Special Assessment Remittances	72,870.00

RECEIPTS

June 1, 1948 - April 20, 1949

Assessments:		
Atlantic County	$ 3,432.00	
Bergen County	9,564.00	
Burlington County	1,364.00	
Camden County	5,932.00	
Cape May County	864.00	
Cumberland County	1,700.00	
Essex County	33,150.00	
Gloucester County	1,220.00	
Hudson County	13.536.00	
Hunterdon County	720.00	
Mercer County	6,940.00	
Middlesex County	5,098.00	
Monmouth County	4,720.00	
Morris County	3,501.00	
Ocean County	888.00	
Passaic County	11,136.00	
Salem County	720.00	
Somerset County	1,936.00	
Sussex County	768.00	
Union County	11,388.00	
Warren County	972.00	
		$119,549.00
A.M.A. Special Assessments		72,870.00
Journal Advertising (net)		18,426.64
Commercial Exhibits		10,017.50
Interest		373.95
Sale of Maternal Welfare Books		227.50
1947-48 Accounts Receivable		39.60
New Jersey Health Congress		39.65
Refund of 1947-48 Budget Expenditure		5.00
Prepaid Expenses at May 31, 1948.....		1,000.00
Payroll Taxes Withheld from Employees		305.74
Old Checks cancelled		11.54
Rents		715.00
Total Receipts		$223,581.12

EXPENDITURES

June 1, 1948 - April 20, 1949

BUDGET ACCOUNTS:		
Administrative:		
A- 1—Executive Salaries		$ 28,687.92
A- 2—Staff Salaries		11,345.56
A- 3—Executive Office Expenses		2,128.13
A- 4—Executive Travel		1,249.22
A- 5—House Maintenance		5,682.77
A- 5a-Library		29.85
A- 6—Treasurer		459.01
A- 7—Finance and Budget Committee		24.00
A- 9—Audit		400.00
A-10—Secretary		1,306.62
A-11—Salary Taxes		474.66
A-12—Insurance		327.19
		$ 52,114.93
Journal:		
B- 2—Journal Cuts		15.12
B- 5—Journal Office Expenses		443.32
		$ 458.44
Welfare:		
C- 2—Welfare Committee		$ 638.05
C- 3—Legislative Committee		3,651.03
C- 4—Public Health Committee		213.27
—Public Health Week		584.41
C- 5—Public Relations Committee...		9,822.30
C- 6—Medical Practice Committee...		158.53
		$ 15,067.59
Special:		
D- 1—President		$ 322.17
D- 2—A.M.A. Delegates		1,765.74
D- 3—Dues and Contributions		725.00
D- 4—New Jersey Health Congress..		182.16
D- 5—Fall Clinical Conference		806.31
D- 8—Woman's Auxiliary		1,001.59
D-13—Medical Education Committee		29.75
D-15—Veterans Liaison Committee..		108.00
		$ 4,940.72
Contingent:		
E- 1—Board of Trustees		$ 220.48
E- 2—Special Contingencies		213.93
		$ 434.41
H- —Pension		1,375.00
Total Budget Accounts		$ 74,391.09
Accounts Payable, May 31, 1948		1,131.28
Assessment Remissions		95.00
Journal Publication		24,233.97
Permanent Home Account		7,556.48
Annual Meeting		2,896.80
Permanent Capital Fund		72.45
Nash Sedan		1,758.80
Refund Journal Subscriptions		6.00
Total Disbursements		$112,141.87

COMPUTATION OF CASH SURPLUS

Cash Balance, April 20, 1949		$232,357.90
Estimated Expenses, April and May, 1949	30,000.00	
Estimated Cash Balance, May 31, 1949.		$202,357.90

Report of the Reference Committee approved by the House of Delegates, April 1948: ". . . we recommend that the dues for 1949 be $24.00 ($1.00 per member over Fin-

ance and Budget Committee recommendation) per member and that $5000 of the dues to be raised be set aside as a special reserve fund."

Special Cash Reserve for Emergencies	$ 5,000.00	
7/12, 1949 Dues applicable to 1949-50	65,137.33	
A.M.A. Special Assessments	72,870.00	
House Reserve	14,781.65	
Annual Meeting Reserve	10,158.85	
		$167,947.83
Estimated General Cash Surplus, May 31, 1949		$ 34,410.07
1949-50 Budget Appropriations Requested		$120,165.00
1949 Dues applicable to 1949-50 Budget		65,137.33
Amount to be raised by dues		$ 55,027.67
4866 Members @ $30.00—$145,980.00 5/12 of $145,980.00 applicable to 1949-50		$ 60,825.00

As of June 1, last year, we had a balance on hand of $120,918. With your approval I refrain from reading the pennies, but you can be sure your Reference Committee will carefully scrutinize the pennies. When they do, I have arranged to be paged to make a rush return to my home!

Receipts, June 1 - December 31, 1948, are $29,076, giving us a total of $149,995. During that time, expenditures amounted to $71,019 leaving us with a balance as of December 31, 1948, of $78,976.

We had a balance on hand June 1, 1948, of $120,918. Our receipts during the period through last April 20 amounted to $223,581, giving us a total of $344,499.

The expenditures during this period of time amounted to $112,141, giving us a balance as of April 20, 1949, of $232,357.

Don't let that figure scare you, because included in that figure are several factors which are definitely earmarked, such as Permanent Home Reserve, Annual Meeting Reserve, a special reserve fund created by the House last year to be set aside for emergency, and included in that figure of $232,357 there is the A.M.A. Special Assessment remittances. Our permanent Capital Fund remains the same as it has been in previous years, $15,065.

In regard to the A.M.A. special assessment I was afraid that I would have to report to you today that only 2915 members out of 4866 had sent in their contributions. However, at that time a few counties had not yet responded. Between last Wednesday and Saturday, however, those counties did respond so that at present, I am happy to report that out of 4882 members in the State Society, 3727, or 76.3 per cent have paid their A.M.A. assessments.

PRESIDENT HORNBERGER: Thank you for that fine and illuminating report. That will be referred to Reference Committee "B". Dr. Sica, Chairman of the Board of Trustees, whose report is published on Page 181 of the April JOURNAL, has a supplemental report.

DR. SICA:

At the March 20 meeting of the Board, the following amendments to the Constitution and By-Laws were approved and are referred to the House of Delegates for consideration:

BY-LAWS, CHAPTER VIII:

Present Section 13 to be changed to Section 14 and so on, so that the final Section 17 shall become Section 18.

Section 13—Advisory Committee to Woman's Auxiliary:

(a) The Advisory Committee to the Woman's Auxiliary shall consist of five members. It shall at all times be cognizant of the activities of the Woman's Auxiliary and shall be the official liaison body between the Auxiliary and the Medical Society. It shall act as an advisory body in answering questions submitted to it by the Auxillary, and shall be responsible for implementing the policy and programs of the Medical Society in matters pertaining to the Auxiliary.

(b) It shall receive and consider suggestions from the Auxiliary for activities in which the Auxiliary might assist the Medical Society.

(c) It shall make frequent reports on the Auxiliary's activities to the Trustees, and an annual report to the House of Delegates.

(d) It shall ascertain the need for funds by the Auxiliary and shall have supervision over the expenditures of such funds appropriated by the Society.

(e) This Committee shall recognize the close relationship between the activities of the Auxiliary in matters pertaining to the policy and programs of the Medical Society and the activities of the committees of the Medical Society having jurisdiction over such activities. Therefore, any program of the Auxiliary in this connection shall be sponsored by that committee of the Medical Society whose duty it is to deal with that particular activity, and after approval by the Board of Trustees, shall be financed within the limitations of the budget allotted to that particular committee.

(f) This Committee shall recognize that an important function of the Woman's Auxiliary is to act as hostess at the Annual Meeting of the Society and to the Auxiliary of the American Medical Association when it meets in New Jersey, and that no other activities of the Auxiliary shall detract from this function.

BY-LAWS, CHAPTER V:

Add the following paragraph to Section 6:

The term of office of Delegates and Alternate

Delegates to the American Medical Association shall begin on January 1 of the year following their election. Their terms of office shall be for two years, ending on the second December 31 thereafter.

CONSTITUTION, ARTICLE IV:

Section 3-(a) Apportionment. Each component society shall be entitled to one (1) delegate for each *fifty (50)* members or major portion thereof, ... but, each component society shall be entitled to at least *two (2)* delegates. . . .

The Board of Trustees approved the report of the Honorary Membership Committee recommending the nomination of Mr. George E. Stringfellow for Honorary Membership in The Medical Society of New Jersey. For three years Mr. Stringfellow has been Chairman of the New Jersey Division of the American Cancer Society. During this entire time he has maintained broad views of public service and high regard for the integrity of the medical profession. With these two guiding principles, together with his own obvious purpose to be considerate and impartial, he has led the committee in establishing complete harmony and cooperation between his committee and our profession, and has personally been largely responsible for the preservation of the private practice of medicine in the treatment of cancer in New Jersey.

The Board of Trustees recommends election of Mr. George E. Stringfellow for Honorary Membership in The Medical Society of New Jersey.

The Board approved the report of the Special Committee selecting Dr. William L. Vroom of Ridgewood, Bergen County, as the recipient of the 1949 General Practitioner's Award.

At the meeting of the Board here in Atlantic City, Sunday evening, April 24, the following matters were adopted and are referred to the House of Delegates for consideration:

Resolution 1—Medical Care of Welfare Clients and Medically Indigent Patients.
(See below, resolution No. 1)

Resolution 2—Medical Personnel Requirements of the Armed Forces.
(See resolution No. 2)

Resolution 3—Improvement of Local Public Health Services.
(See resolution No. 3)

Resolution 4—Medical Care of Veterans and Operation of VA Hospitals.
(See resolution No. 4)

Nominations for Emeritus Membership in The Medical Society of New Jersey.
(See item No. 5 below)

The following communications from county societies are referred to the House of Delegates without recommendation:

Essex County—a. General Practice Section
b. General Practice Staffs in Hospitals
(See below, item No. 6)

Passaic County—Honorary Membership in State Society
(See below, item No. 7)

RESOLUTION NO. 1
MEDICAL CARE OF WELFARE CLIENTS AND MEDICALLY INDIGENT PATIENTS

WHEREAS, the number of families dependent upon public assistance has been increasing in recent months, accompanied by a growing need for high quality care, to be provided by local welfare agencies, and

WHEREAS, certain communities are attempting to supply medical care to welfare patients through one or more designated physicians employed on part-time contractual arrangements, and

WHEREAS, this system has been found to be more expensive to the community, and less satisfactory to both the patient and the physician than a free-choice, fee-for-service plan, since it denies the patient the right to choose his own physician and to obtain his medical care under the conditions of privacy and freedom available to his more fortunate neighbors, and

WHEREAS, many communities have not established standards for the recognition of medical indigency, or made arrangements to provide necessary medical service at public expense to people who, while self-supporting in other respects, are unable to meet the costs of medical and hospital care, therefore be it

RESOLVED, That The Medical Society of New Jersey hereby requests each of its component county medical societies to

A. Make an immediate study of all publicly supported medical services in every community in its county to determine:

(1) Which communities provide medical service to "relief clients" and to the "medically indigent" through the physician of the patient's choice and on a fee for service plan.
(2) Which communities, if any, provide medical service to "relief clients" and/or to the "medically indigent" through a salaried physician or physicians serving the municipality on a contract or appointment basis.
(3) Which communities are paying hospital bills for "medically indigent" patients in addition to regular "relief clients".

B. That each county medical society make every effort to persuade every community to provide medical service to relief patients by the free choice, fee for service plan.

C. That each county society do everything possible to persuade every community to fulfill its responsibility in providing hospital and medical care for medically indigent citizens; i.e., the responsible community or county be urged to pay the per diem cost for the care of the indigent and medically indigent patients in voluntary hospitals.

D. That each county society appoint an appropriate committee to carry out the above survey and plan of action and to represent the county society in all matters of welfare and medical service as well as to serve in an advisory relationship to the welfare authorities throughout the county in the administration of these programs.

NOTE—For the purposes of the above resolution, the following definitions are appended:

A. The indigent or relief clients are those persons whose names appear on the relief rolls of the communities.

B. The medically indigent or low income group are persons who are otherwise self-supporting but unable from their income to provide themselves with adequate medical care.

C. Medical indigency must be determined at a local level by the government agency paying for the medical care.

RESOLUTION NO. 2
MEDICAL PERSONNEL REQUIREMENTS OF THE ARMED FORCES

RESOLVED, That The Medical Society of New Jersey hereby affirms and reiterates the following resolution concerning supply of medical officers for the armed forces, and requests its Delegates to sponsor this resolution if necessary at the next meeting of the House of Delegates of the American Medical Association in June, 1949:

WHEREAS, The American Medical Association recognizes that there is a serious deficit of medical officers to meet the anticipated needs of the armed forces, and that there appears to be no prospect, under present methods, of overcoming this deficit; and

WHEREAS, The American Medical Association recognizes its responsibility to aid the government in obtaining a sufficient complement of young physicians and qualified specialists for the armed forces; therefore be it

RESOLVED, That the American Medical Association suggests that the National Security Resources Board be given adequate statutory authority to meet the requirements of the armed forces for medical personnel under a plan embodying the following principles: (1) deferment of recent graduates until completion of an internship not to exceed two years; (2) deferment of medical students to complete their medical education and an internship, the latter not to exceed two years; (3) obligation of the physicians constituting both the above groups, at completion of internship, to accept a term of service in the armed forces equivalent to that served by draftees, regardless of their attained age at completion of internship; (4) acquisition of the needed complement of specialists and other especially qualified physicians on a contract basis without regard to age limitations and on a salary sufficient to attract such personnel, and (5) institution of a survey of the personnel of medical teaching institutions to the end that each institution release one or more of its staff for a period of at least one year for service with the armed forces.

RESOLUTION NO. 3
IMPROVEMENT OF LOCAL PUBLIC HEALTH SERVICES

WHEREAS, The Medical Society of New Jersey has repeatedly emphasized the need of improving local health department services, and

WHEREAS, The "Twelve Point National Health Program" of the American Medical Association emphasizes the basic need of better local health services in any health program, and

WHEREAS, The first prerequisite of any effort to improve local health services in New Jersey is the enactment of legislation to enable existing local health jurisdictions to consolidate their resources and populations into regional units of sufficient size to support a minimum full-time professional health department staff, therefore be it

RESOLVED, That The Medical Society of New Jersey, in collaboration with the Commissioner of Public Health of New Jersey, introduce in the Legislature and press for passage of, a bill which will assure the prompt attainment of the required changes in the present structure of the public health sysem in this State.

RESOLUTION NO. 4
MEDICAL CARE OF VETERANS AND OPERATION OF VA HOSPITALS

WHEREAS, more than eighty per cent of all patients in Veterans Administration Hospitals are at present admitted for care of non-service-connected disabilities; and

WHEREAS, these facilities were intended primarily for the use of veterans with service-connected disabilities; and

WHEREAS, the liberal admission policies of the Veterans Administration with reference to non-service-connected disabilities are used as a reason or pretext for continuous expansion of Veterans Hospitals and construction of new hospitals at a cost to the taxpayer far in excess of the cost of erecting non-governmental voluntary hospitals; and

WHEREAS, construction of new VA Hospitals is carried forward without reference to, and completely unintegrated with, the program of expansion of civilian hospital facilities under the Hospital Survey and Construction Act; and

WHEREAS, the present over-crowding of VA Hospitals, primarily with non-service-connected disabilities, actually operates in some areas to the disadvantage of veterans suffering from service-connected disabilities; and

WHEREAS, the competitive requirements of VA Hospitals for medical and nursing personnel are aggravating the national shortage of physicians and nurses to the detriment of civilian hospitals and medical services; now therefore be it

RESOLVED, That in view of the circumstances stated in the preamble of this Resolution, The Medical Society of New Jersey recommends that the following basic principles be recognized and implemented henceforth in the operation of VA Hospitals and medical services:

1. That veterans with service-connected disabilities should have first call upon all available services of the Veterans Administration and should be given adequate medical care of the highest obtainable quality at government expense, either in Veterans Hospitals or under civilian auspices, through the physician and hospital of the veteran's personal choice, if the veteran so prefers:

2. That the principle be recognized that a non-service-connected disability suffered by a veteran is no more a responsibility of the Federal Government than a disability suffered by anyone else, and any veteran suffering a non-service-connected disability should avail himself of the established community facilities for the care of such a condition in the same manner as any other citizen of the United States in similar circumstances:

3. That as a corollary to the principle directly above

stated, any person who is medically indigent, whether a veteran or non-veteran, shall be recognized as a rightful charge against the local community with such supplementary assistance as shall be available to all citizens from state or Federal funds:

4. That hospital facilities of all communities, owned and operated by whatever branch of the government, local, state or Federal, or by whatever private agency, should be considered as a single entity; their services should be coordinated, and expansion of hospital facilities in any community should be undertaken in full light of all present hospital facilities by whomever owned or operated.

And, be it further

RESOLVED, That a resolution to this effect be sponsored by the Delegates of The Medical Society of New Jersey at the next meeting of the House of Delegates of The American Medical Association in June 1949.

ITEM NO. 5

NOMINATIONS FOR EMERITUS MEMBERSHIP IN THE MEDICAL SOCIETY OF NEW JERSEY

Burlington County

Dr. Emlen P. Darlington, Browns Mills; Age 76; Retired because of age and health; county member, 1913; member in good standing.

Dr. John S. Conroy, Burlington; Age 62; Retired because of age and health; county member, 1914; member in good standing.

Dr. Edward R. Hunter; Delanco; Age 60; Retired because of age and health; county member, 1916; member in good standing.

Dr. Emma P. W. Metzer, Riverside; Age 78; Retired because of age; county member 1899; member in good standing.

Dr. Clinton D. Mendenhall, Bordentown; Age 70; Retired because of health; county member, 1901; member in good standing.

Cumberland County

Dr. Raymond Simkins, Bridgeton; Age 70; Retired because of health; county member, 1917; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Hudson County

Dr. James W. Timlin, Arlington; Age 68; Retired because of health; county member, 1916; member in good standing.

Mercer County

Dr. Royden W. Davison, Lake Stafford, N. H.; Age 61; Retired because of health; county member, 1916; member in good standing.

Dr. Alton S. Fell, Trenton; Age 84; Retired because of age; county member, 1908; member in good standing.

Dr. William J. Harman, Trenton; Age 71; Retired because of age; county member, 1905; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. John B. Sill, Fort Lauderdale, Fla.; Age 57; Retired because of health; county member, 1921; member in good standing.

Dr. Irvine F. P. Turner, Titusville; Age 76; Retired because of age; county member, 1899; member in good standing.

Dr. Burr W. MacFarland, Trenton; Age 82; Retired because of age; county member, 1911; member in good standing.

Passaic County

Dr. Henry Cogan, Daytona Beach, Fla.; Age 81; Retired because of age; county member, 1909; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. John J. Ritter, Plainfield, Mass.; Age 78; Retired because of age; county member, 1903; member in good standing.

Dr. Charles H. Scribner, Preakness; Age 86; Retired because of age; county member, 1892; member in good standing.

Essex County

Dr. William H. Areson, DeSoto City, Fla.; Age 75; Retired because of health; county member, 1908; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. Thompson M. Baird, Point Pleasant; Age 81; Retired because of health; county member, 1926; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. Samuel H. Baldwin, South Orange; Age 79; Retired because of health; county member, 1904; member in good standing.

Dr. Theodore E. Bleick, Newark; Age 80; Retired because of health; county member, 1906; member in good standing.

Dr. Fletcher F. Carman, Montclair; Age 73; Retired because of health; county member, 1908; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. Aims R. Chamberlain, Maplewood; Age 70; Retired because of health; county member, 1911; member in good standing.

Dr. Linn Emerson, Orange; Age 76; Retired because of ill health; county member, 1909; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. Otto Lowy, Hollywood, Fla.; Age 70; Retired because of health; county member, 1905; member in good standing.

Dr. Hesser G. McBride, East Orange; Age 63; county member, 1910; Retired because of health; member in good standing.

Dr. Ernest W. Mierau, West Point Pleasant; Age 65; Retired because of health; county member, 1920; member in good standing.

Dr. Nathaniel G. Price, Union; Age 73; Retired because of health; county member, 1905; member in good standing.

Dr. Harry A. H. Schachter, Deal; Age 54; Retired because of disability by reason of military service; county member, 1939; member in good standing.

Dr. Byron J. Smith, East Orange; Age 62; Retired because of health; county member, 1925; member in good standing.

Dr. Joseph J. Smith, Newark; Age 69; Retired because of health; county member, 1908; member in good standing.

Dr. Leopold Szerlip, Newark; Age 54; Retired because of health; county member, 1923; member in good standing.

Dr. Charles E. Teeter, Newark; Retired because of health; Age 76; county member, 1904; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. Briscoe B. Ranson, East Orange; Age 72; Retired because of health; county member, 1929; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. Herbert W. Foster, Montclair; Age 80; Retired because of health; county member, 1929; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Camden County

Dr. Arthur T. Eaton, Haddon Heights; Age 66; Retired because of loss of sight; member in good standing; county member, 1916.

Dr. Emma M. Richardson, Camden; Age 73; Retired because of accident; county member, 1898; member in good standing.

Dr. Edward Rossell, Colwick; Age 73; Retired because of health; county member, 1906; member in good standing.

Dr. John E. L. Van Sciver, Haddonfield; Age 77; Retired because of old age; county member, 1901; member in good standing.

Dr. Joseph C. Lovett, Camden; Age 65; Retired because of health; county member, 1918; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Union County

Dr. Guido M. Guidi, Elizabeth; Age 73; Retired because of age; county member, 1913; member in good standing.

Dr. Sherwin L. Haseltine; Age 64; Retired because of health; county member, 1920; member in good standing.

Dr. Frederic J. Hughes, Plainfield; Age 73; Retired because of age and health; county member, 1924; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. William H. Lawrence, DeLand, Fla.; Age 71; Retired because of health; county member, 1906; member in good standing.

Dr. George L. Orton, Rahway; Age 71; Retired because of age; county member, 1911; member in good standing; nominated for A.M.A. Affiliate Fellowship.

Dr. John D. Tidaback, Summit; Age 68; Retired because of health; county member, 1922; member in good standing.

Dr. Simon F. Wade, Milford, Pa.; Age 65; Retired because of health; county member, 1912; member in good standing; nominated for A.M.A. Affiliate Fellowship.

ITEM NO. 6

ESSEX COUNTY MEDICAL SOCIETY

Resolution A

WHEREAS, the American Medical Association has recognized the need of the General Practitioner to enhance his scientific development by establishing a General Practice section;

WHEREAS, the Academy of Medicine of Northern New Jersey has established a General Practice section;

BE IT RESOLVED, that The Medical Society of New Jersey establish a General Practice Section.

Resolution B

WHEREAS, the American Medical Association has recommended the establishment of General Practice staffs in all hospitals as a matter of policy;

WHEREAS, the American Academy of General Practice has made a two-year study of the problems of the General Practitioner and has presented a very flexible plan that can be applied to any hospital wishing to establish a General Practice staff;

WHEREAS, the establishment of a General Practice staff in all hospitals will integrate the General Practitioner into the regular hospital staff and thereby enhance his scientific and professional standing;

BE IT RESOLVED, that The Medical Society of New Jersey recommend as a matter of policy that all hospitals receiving monies from public and welfare funds in New Jersey establish General Practice Staffs.

ITEM NO. 7

From: Passaic County Medical Society, March 31, 1949.

At the Welfare Council meeting held on March 14, the Council requested that a recommendation concerning Honorary Membership in the State Society be forwarded for consideration and that a resolution be drawn for presentation to the Annual Meeting of the State Society, amending the Constitution and By-Laws section concerning such Honorary membership.

As the section now stands, only those members of component Societies who have been members 20 years and retired from active practice are eligible and we feel that an amendment should be proposed in order that those members of component societies who have been members of their respective societies for 40 years regardless of retirement should be eligible for Honorary Membership in the State Society.

Our County By-Laws, Section 5, state—"Forty years of active membership in the Society shall constitute life membership, with remission of further dues and assessments" and we feel that some consideration should be given these men on a State and National basis.

PRESIDENT HORNBERGER: Thank you, Dr. Sica. After hearing Dr. Sica's supplemental report, you can well appreciate the tremendous amount of work that Dr. Sica and his colleagues on the Board of Trustees have done, and they deserve from us a vote of thanks. (Applause)

It was felt at a meeting of the Board Sunday night, that, in view of very recent developments in Public Health legislation which had been introduced by President Truman, by Senator Ball, Senator Smith and Senator Taft and others, that the House of Delegates of The Medical Society of New Jersey could at this session take some very special forward steps toward proposing something very concrete in the way of our attitude toward this compulsory health insurance program. With that in mind a special committee was named to draft a resolution together with one or two other resolutions.

Dr. Royal Schaaf was Chairman of that Committee, and I would like to ask him to present those resolutions, now.

DR. ROYAL SCHAAF: Mr. President, Members of the House of Delegates: The Board of Trustees meeting on Sunday evening was very long and complicated. It went from 8:00 to 12:30 and before the meeting was completed there were three remaining items that needed consideration in the form of resolutions.

A committee was appointed by the Chairman of the Board consisting of Drs. Norton, Crowe and myself, and they were asked to draft the exact wording of three resolutions which had been discussed, but on which no conclusion had been reached. We are prepared now to offer three resolutions which we think reflect the ideas of the Trustees, but which had not had formal action at the meeting of the Trustees because there has been no meeting since Sunday night.

The first resolution relates to voluntary and compulsory health insurance.

RESOLUTION NO. 1
VOLUNTARY AND COMPULSORY
HEALTH INSURANCE

WHEREAS, the medical profession recognizes the need of plans to enable people of moderate or low incomes to prepay the cost of medical and hospital care, and

WHEREAS, such plans are now available in all parts of the United States and have already been accepted voluntarily by a large and growing proportion of the people, and

WHEREAS, The Medical Society of New Jersey favors the widest possible expansion and improvement of voluntary health insurance plans, locally administered and controlled, and

WHEREAS, governmentally controlled or operated compulsory health insurance, such as proposed by President Truman, wherever it has been instituted abroad, has resulted in deterioration in the standards of medical service and has lowered the levels of public health, and

WHEREAS, a bill embodying the President's proposals was introduced into the United States Senate on April 25, 1949, therefore be it

RESOLVED, that The Medical Society of New Jersey unqualifiedly endorses the "Twelve Point National Health Program" of the American Medical Association, and be it further

RESOLVED, that The Medical Society of New Jersey hereby expresses its emphatic opposition to the enactment of any form of governmentally operated or controlled compulsory health insurance in the

firm conviction that such a plan is contrary to the public interest, and be it further

RESOLVED, that a copy of this resolution be forwarded to the President of the United States, to each Senator and Representative from the State of New Jersey, and that the said Senators and Representatives be and are hereby respectfully requested to use every effort at their command to prevent the enactment of any governmentally operated or controlled plan of national compulsory health insurance.

Mr. President, I move that this report be received and referred to the Reference Committee on Resolutions and Memorials.

(The motion was seconded, put to a vote and carried.)

DR. SCHAAF: This second resolution really supplements the resolution for recruitment of physicians for the armed services.

RESOLUTION NO. 2
RECRUITMENT OF PHYSICIANS EDUCATED IN PART OR IN WHOLE AT GOVERNMENT EXPENSE

WHEREAS, many physicians received their premedical and/or their medical education, in whole or in part, at the expense of the federal government, they being deferred from active service in the armed forces during this period, and

WHEREAS, many of the physicians so educated have not fulfilled their moral obligation or actual commitment to the Federal Government to serve a definite period as medical officers in the armed services, and

WHEREAS, there is presently a grave deficiency in the number of medical officers now serving in the armed forces, therefore be it

RESOLVED, that the Secretary of Defense of the United States be urged to take appropriate measures to assure that all the above designated physicians be made available for service in the armed forces and be it further

RESOLVED, that the delegates of The Medical Society of New Jersey to the House of Delegates of the American Medical Association be requested to present a resolution to the above effect at the Annual Meeting of the House of Delegates of the A.M.A. in June 1949.

Mr. President, I move that that resolution be received and referred to the Reference Committee on Resolutions and Memorials.

(Seconded by Dr. Greifinger; put to a vote and carried.)

DR. SCHAAF: The third resolution refers to bond issue for our state institutions and agencies.

RESOLUTION NO. 3
BOND ISSUE FOR INSTITUTIONS AND AGENCIES

WHEREAS, there is urgent need for expansion and improvement of New Jersey's hospital facilities for care of the mentally ill and other wards of the state, therefore be it

RESOLVED, that The Medical Society of New Jersey unqualifiedly endorse the proposal for a bond issue of $25,000,000 to be submitted to the electorate of New Jersey by referendum at the election in November 1949, to provide funds for mental hospitals and other institutions under the direction of the Department of Institutions and Agencies, and be it further

RESOLVED, that The Medical Society of New Jersey urge the electorate of this state to approve this proposal.

I move you sir that this resolution be received and referred to the Reference Committee on Resolutions.

(Seconded by Dr. Morris; put to a vote and carried.)

PRESIDENT HORNBERGER: Our good friend Dr. J. Stanley Kenney, one of our visiting delegates from the State of New York, is now with us. I recognize Dr. Kenney and ask him to come to the platform and say a few words to the members.

DR. J. STANLEY KENNEY: (Representative of the New York Society): Dr. Hornberger, Officers and Members of the House of Delegates: I am beginning to feel quite at home here in New Jersey. This is the fifth time I have had the pleasure of coming down here, and I know a great many of you, and I always enjoy this visit.

I bring you particularly today the greetings of Dr. Leo Simpson, the President of the Medical Society of the State of New York, and Dr. Walter Anderton, our Secretary, who is known to most of you. Dr. Anderton is sorry that he could not be here today, but the proximity of the meeting of the New York State Society which is next Monday, in Buffalo, has got him pretty well tied up. Otherwise he would be here. I have just listened with considerable personal interest to the report of Dr. Sica referring to these gentlemen whose age I am beginning to approach a bit, who are being retired, particularly when he called my attention to Dr. Herbert W. Foster, of Montclair, N. J. As a former resident of Montclair and attending the Montclair Academy in my school days, I remember him very well, and he was in his prime at the time I was a schoolboy there—and it kind of awakened nostalgic memories.

New York has problems that are very similar to yours in many ways. We have the common problem, that of the compulsory sickness insurance program. We have this common problem of the doctors in the armed services, the problem of the establishing of the voluntary medical care plan, and many others. We have some rather peculiarly local problems, I think, in New York State that have not invaded New Jersey as yet. I am referring particularly to the presence in our New York City

area, and also in some of our upstate cities, of the large medical teaching centers and hospitals that are being set up and central groups in the hospital expansion program that seemingly have a different philosophy from that of most of us. The invasion of the rights of private practice by these large institutions is worrying us very considerably, in New York.

As Chairman of the Planning Committee for Medical Policies of the State Medical Society, I have had some opportunity to study this problem and we have had numerous consultations with the Attorney General and with the State authorities administering the Hill-Burton Act. We have certain statutes in New York that have to do with the legalization of group practice, which are in direct conflict, insofar as they affect for instance, Workmen's Compensation practice, and the groups set up under civilian auspices, and it makes it very difficult for us to arrive at any solution. I know some of you who live in the Hoboken and Jersey City areas and localities adjacent to New York will be touched by this question. Some of the doctors practicing in New York live in New Jersey and I feel that the expansion of the Health Insurance plan, so-called "Mayor's Plan", which is a difficult problem in metropolitan New York, is now reaching into suburban New York, Westchester, Nassau, and so on. I am certain they are not going to skip Newark and Jersey City.

In these days we have continual encroachment of government in our affairs, not only in medicine, but in the whole scope of our economic system; in these days when they are leading us away from the principles of free economy, I believe we should use our influence as physicians to our greatest extent, with every contact we make. This whole program is not an isolated phenomenon. Socialized medicine does not belong in this country. We have no place for it. It is merely the tool of the do-gooders and reformers. It is part and parcel of the great overall program that is leading this country into a welfare state, as I prefer to call it, the collectivist or socialist state.

With these very few remarks I want to express my pleasure at being with you, and am looking forward to learning a good deal, and I want to take this opportunity to tell you gentlemen how much I appreciate the meeting in Philadelphia last Thursday, presided over by your Dr. Quigley. A splendid report of the activities of your state was presented by Mr. Bryan. It was a very fine presentation, and I want to extend to you, Jim Norton, my very personal wish for a pleasant year as President of this Society. Thank you.

PRESIDENT HORNBERGER: Thank you, Dr. Kenney. We are delighted to have you and hope you will stay with us for the balance of our meeting.

In Dr. Sica's report he recommended some amendments to the By-Laws which under our Constitution if read a second time can then be laid over for one day, and officially adopted at this session of the House of Delegates. So if Dr. Sica will read those a second time, we can take the appropriate action.

(The proposed amendments to the By-Laws, presented previously at this meeting by Dr. Sica, were read the second time.)

PRESIDENT HORNBERGER: The proposed amendments to the By-Laws have been read twice and will now be referred to the Committee on Constitution and By-Laws for final action, tomorrow.

Now, with regard to just one special recommendation of the Board of Trustees, I would like to suggest that we act upon that at this time. Do I hear a motion that that recommendation of the Board of Trustees be concurred in?

It has been properly moved and seconded that that recommendation of the Board of Trustees be concurred in.

(The motion was made by Dr. Schretzmann, and seconded by Dr. Mulligan—put to a vote and carried.)

PRESIDENT HORNBERGER: Last year we had the pleasure by reason of the action of the Board of Trustees and House of Delegates, of presenting to one of our New Jersey men an award as the outstanding general practitioner in New Jersey. It was decided that again this year we should follow that example.

After due consideration the Committee on the Award has acted upon the name of Dr. William L. Vroom, of Bergen County. Dr. Vroom will be introduced by Dr. Luke A. Mulligan, president of the Bergen County Medical Society. (Applause)

DR. MULLIGAN: Bergen County Medical Society presents to you, Dr. William Loveridge Vroom of Ridgewood, N. J., the state's outstanding general practitioner. Dr. Vroom is a direct descendant of Pieter Corneliuson Vroom who was one of the first residents of Manhattan Island, arriving there in 1612 from Pernambuco, Brazil. They were in the employ of the Niew Netherlands Company and set up a trading post on the Island. Pieter Vroom brought with him his wife and child. Later on, following Pieter's death, his widow became the first Burgomistress of Niew Amsterdam. Among the earlier ancestors of this family of distinguished citizens Dr. Vroom can count one of the first Governors of the Colony of New Jersey, Peter D. Vroom.

Our Dr. Vroom was born in Hoboken, on April 1, 1866, the son of William H. Vroom, a direct descendant of the previously mentioned Pieter Vroom, and Mary Etta Gow of Scottish ancestry.

When Dr. Vroom was four years of age, his

family migrated to the west, residing in what is now Kansas and Iowa. His father was a Dutch Reformed minister and helped found the town of Lacygne in the Kansas Territory. Dr. Vroom is able to recall first-hand stories of skirmishes with Indians on the frontier where he lived.

When Dr. Vroom was six years old they moved to Kingston, N. Y., where he attended the public schools and then went to the Kingston Academy. The family spent their summers at Lake George and during the summer after his graduation from the Academy young William met a woman, in charge of the schools in the Lake George area, who persuaded him to begin teaching school. This he did for one year in a one room school house. While teaching he became interested in medicine, began to read medical books and then decided to study medicine.

He returned to Kingston and, in company with his father, called on Dr. Sahler, the family physician and friend. Dr. Sahler agreed to take him as a student, appeared at the Vroom residence the following day with a load of textbooks and a box of bones and young William was then on his way. He travelled with the doctor, helped him with dressings and did various minor jobs. In 1884 his father took him to the University of New York and he was enrolled in its school of medicine. During his first year he commuted to Orange, N. J., and lived with a friend. He was just twenty-one when he was graduated from the University in 1888. He then went to several doctors in New York City but was unable to find anyone with whom he could share an office.

In the meantime his father had moved to Paramus, N. J., and during one of the doctor's visits home, an old friend of the family, Mr. Westervelt, advised him to set up an office in Ridgewood, which was badly in need of another doctor. Consequently, he opened his first office right across the street from the Westervelt grocery in Ridgewood.

The other physicians in the town welcomed him cordially, particularly Dr. William Francis who was especially glad to see Dr. Vroom since, due to the scarcity of medical facilities in the vicinity, he had been unable to secure time for any vacation in a period of twenty years. Dr. Vroom readily consented to take over his colleague's practice during the time he would be away on his much needed vacation but, within a few days, Dr. Francis died. Dr. Vroom then made arrangements with Mrs. Francis to take over her deceased husband's practice.

Shortly afterwards he bought a home in Ridgewood, which is the oldest house in that town and, it is quite evident that the biography of Dr. Vroom is closely knit with the history of the Township of Ridgewood from that date on. He has grown up with the community and is now considered one of its most distinguished and venerated citizens. He has been, at one time or another, a member of the Board of Trustees of the village, a member of the Board of Health, the originator of Ridgewood's water and sewer systems, one of the founders of the First National Bank and Trust Company, and a member of its Board of Directors for fifty years.

Travel has always been one of his interests. He has made trips to Europe, Asia and Africa. A personal friend of Woodrow Wilson, he was commissioned by the President to go with Mr. Paul Fuller to search out the bandit Pancho Villa. His experiences in the interior of Mexico and his story about delivering the presidential message to the bandit add color to his life.

This country doctor was chosen by the Rockefeller Institute to pioneer in the use of insulin in Bergen County. Dr. Flexner gave him one of the first batches of diphtheria anti-toxin to be used outside of the laboratory.

In New Jersey, the traditional home of the mosquito, Dr. Vroom pioneered in the obliteration of malaria at a time when his colleagues thought the disease was caused by the dank odors of the swamps. He has delivered over 2000 babies in his vicinity. During the early nineteen hundreds he was the coroner of Bergen County.

The Bergen County Medical Society has been one of Dr. Vroom's major interests. He is our oldest living past-president, having held office during 1905. He regularly attends every meeting and has served continuously on some committee or other for many years past. He has been a delegate from this society to the Annual Meeting of the State Society for over twenty years. He is a past-president of the Ridgewood Medical Society.

Patriotism is one of our friend's outstanding qualities. He served actively in World War I as a Lieutenant Colonel in command of Base Hospital 49 in France. In World War II he organized the medical part of Selective Service Local Board No. 3 and served as its head for five years.

He is a founder of the local Rotary and one of its most active members. He is a member of the Masonic Lodge. Long a member of the Holland Society of New York, the doctor is proud to count himself among this group of Americans who date their American ancestry to Dutch settlers who arrived in this country prior to 1700. Dr. Vroom founded the first hospital in Ridgewood and is busily engaged at present in the organization and building of a new two million dollar community hospital.

A word should be said of the vigor of this 84 year old doctor. He is an ardent horseback rider and in his 80th year made a pack-horse trip for a month through the Rocky Mountains.

He was first married in 1893, at the age of twenty-seven, to Miss Blanche Girarde Miller of Philadelphia. After the death of his first wife, he married Juanita Wandell of Saddle River in 1920. After her death in 1944 he married, in 1946, the present Mrs. Vroom who was Alma Poey, a descendant of a Spanish don. He has one daughter, Cecelia Groome, and a grandson who is a student at Princeton.

The true stature of this man can be gained from quoting the observations of some of his colleagues. The words, "true gentleman", "quiet reserve", "dependable", "youthful interest in civic affairs", "sense of humor", "wonderful story teller", "keenly alive to new scientific facts", are all used freely by men who know him best. His keen interest in the progress of his chosen profession and his deter-

mination to afford his patients the best in advanced training is exemplified by his completion, at various times, of numerous post-graduate courses of study at Johns Hopkins and New York Post Graduate Medical School and Hospital.

He epitomizes the character of the true physician, friend and counsellor—an example for all young physicians to follow.

PRESIDENT HORNBERGER: Dr. Vroom, it is my privilege and honor to present to you this little medal as a token of the esteem in which we, your colleagues, hold you, as the outstanding general practitioner in the State of New Jersey for this current year.

(Presentation of Medal to Dr. Vroom—applause.)

DR. WILLIAM LOVERIDGE VROOM: Mr. President, all my colleagues of The Medical Society of New Jersey: I want to thank you for this recognition. The practitioner today, as a general man, has been fading. The call for more practical, more general men, is now the call of many of our patients. I take the honor this afternoon to accept this presentation as the representative of the class of men who have labored so assiduously in promoting the welfare of The Medical Society of New Jersey and who have furthered the knowledge of medicine, have held up the dignity and the high standing of the profession.

I deeply appreciate having been, through these years, a member of this society. It has been a thought that has come to us lately, that we can hope to be able to continue the practice of medicine with a fresh initiative and not be absorbed with and absorbed into that stifling thought, that stifling ideology of paternalism.

I want to thank you again.

(The audience arose and applauded Dr. Vroom.)

PRESIDENT HORNBERGER: The chair recognizes Dr. Kaman of Atlantic City, president of the New Jersey chapter of the American Academy of General Practice.

DR. SAMUEL L. KAMAN: Mr. Chairman, Members of the House of Delegates, Dr. Vroom: The Directors of the New Jersey Chapter of the American Academy of General Practice have directed me to welcome in the name of our five hundred members as an honorary member of the American Academy of General Practice the 1949 recipient of the general practice award, Dr. William Loveridge Vroom. By virtue of this award, a certificate of Honorary Membership in the New Jersey Academy of General Practice will be sent to you, Dr. Vroom. (Applause)

PRESIDENT HORNBERGER: Thank you, Dr. Kaman.

Lest we forget, may I ask the Secretary, please, if he will escort Mrs. Vroom to the platform? It is awfully nice to welcome the wife of such an outstanding man. May I, on behalf of The Medical Society of New Jersey, present to you this little token.

(Flowers were presented to Mrs. Vroom—applause.)

MRS. VROOM: Thank you, Mr. Chairman, and Members of the House of Delegates. (Applause)

PRESIDENT HORNBERGER: Members of the House of Delegates: We have with us this morning one of the outstanding figures in this country today, a past-president of the American Medical Association, a man whom I knew many years ago, when we were both interested in bird dogs. The Director of the Lahey Clinic—Dr. Frank H. Lahey. Will he please come to the platform and say a few words?

DR. FRANK H. LAHEY: Mr. President, Members of the House of Delegates, and of The Medical Society of New Jersey: When I asked where I was, they said: "You are in the Renaissance Room" and I said, "Well, I didn't know I had gotten that far along, but I would like to go and take a look at it." And so I stuck my head inside the door and one of your members, a close friend, met me and got me in and got me up here. I said, "I don't want to do it lest somebody think I take myself seriously." But he asked me to, so I make this apology for doing it, and said I would say just a few words, and I hope I can stick to it. But it is so difficult to stick to a few words about the national health program.

I recently accepted the Chairmanship of the National Physicians Committee, and that, as you know, is to be closed up. There are many criticisms of people who have been sitting in the bleachers and not on the playing field of this National Physicians Committee, and I hold no brief for it. It has probably accomplished its usefulness, but we must not fail to realize that it has been the opponent, and a vigorous and hard-working opponent of the Murray-Dingell-Wagner Bill, and we owe it a great deal. We must not fail, I mean, to give it full credit for it.

I spoke before the New England Medical Society, which is a group of doctors interested in controverting some of these things. I have said that you have completed a living experiment in lack of thoughtfulness on the part of the medical profession, and in that I mean nothing derogatory to the hospital superintendent and to the hospital administrator, but I would like to make you unhappy, and would like to make you as unhappy as I can, because you need to be made unhappy in the light of this experiment which is completed and another experiment which is in process. Many doctors boast of how little they know about business. You have finally convinced the public that this is true; and the public is not far wrong, because you have

not interested yourselves in business or administration.

There has been a very false philosophy to the effect that it is impossible to be scientifically sound and at the same time to have an interest in economics. There has been an assumption that if you are economically interested, you could have a commercial interest in medicine. That is all wrong. We have been very short-sighted. As a result, hospital administrators and hospital superintendents—(and I have nothing against them; it is our fault, not theirs)—now run the hospitals and tell us what to do. We should long ago have resolved our differences and have had representatives on the Boards of Trustees, and on their executive committees. But that is done; the hospitals have been taken out of your hands to a very great extent and to the disadvantage of medicine. I must warn you that the same experiment is well under way as to the complete dominance of medicine in terms of national control.

I think, personally that we have a year to get ready. I think probably, not due to any lack of effort on the part of those who are interested in this in Washington, but because of the cost we will not get this for a year; but it does not mean that you can be as complacent as you have been in the past. It means you have a year in which to organize and really go to work and—unless you take it seriously—you will be in the same position that England is in today.

We must not oppose this on the basis of general principles. If you don't like Oscar Ewing's book on national health as a whole, you are wrong, because there are many good things in it. The thing we do not want is compulsion. Nothing is settled by compulsion. Compulsion is disastrous.

And let us remember that the people supporting this are professionals; we are amateurs. Unless we get somewhere near the professional basis, they will beat us.

I wouldn't worry about this so much if I felt sure that the people in Washington that are behind it, were sincere. If they were sincere, they would be less vigorous and less aggressive. There is no longer a question of a decision on what is good for the people and what is not good for the people. This is a real, knock-down and drag-out fight; this is a contest. The thing that always makes me suspicious of the politician is when his "heart bleeds for the people". I don't really believe it bleeds.

PRESIDENT HORNBERGER: Thank you, very much, Dr. Lahey. We are delighted to have had you. Do we have any supplemental reports from the Judicial Council?

(There were no supplementary reports from any District of the Judicial Council.)

PRESIDENT HORNBERGER: There being no supplementary reports, the reports as published on Page 184 of the April JOURNAL will be referred to Reference Committee "A".

Does the Executive Officer wish to present a supplementary report at this time?

MR. BRYAN: I have no supplemental report.

PRESIDENT HORNBERGER: Thank you, Mr. Executive Officer. The report as published on page 184 of the April JOURNAL will therefore be referred to Reference Committee "A".

Gentlemen, if any of you have guns, let's put them under the table, because we will now hear the supplementary report of our good friend Dr. David B. Allman, Chairman of the Finance and Budget Committee.

DR. DAVID B. ALLMAN (Finance and Budget Committee): If Dr. Lahey didn't succeed in making you very unhappy, I think I will. Let me preface this report, however, by saying that the Finance and Budget Committee does not get any of this money. This is money that is necessary to run The Medical Society of New Jersey, in an efficient manner as it has been running in the past, and these figures are not evolved out of thin air. They are figures that have been compiled by getting the estimated cost from each committee chairman for the coming year and by figuring in together with them, known costs of operation of our Home Office. They are reliable and accurate, insofar as possible in anticipation of our needs for the current year 1949-1950. We have had to cut practically all of the committees' requests in order to keep our budget in line. Our budget is slightly higher than last year but not much higher, and I think that can readily be understood by everyone here. The cost of maintaining the Home Office is greater, salaries are greater, and contingencies are likely to become more, so that our total budget for this year is, as follows:

REPORT OF THE FINANCE AND BUDGET COMMITTEE TO THE HOUSE OF DELEGATES, APRIL 26, 1949

BUDGET 1949-50

A- 1—Executive Salaries	$ 33,000.00
A- 2—Executive Office Salaries	18,200.00
A- 3—Executive Office Expenses	3,000.00
A- 4—Executive Travel	2,000.00
A- 5—House Maintenance	6,400.00
Library	100.00
A- 6—Treasurer	200.00
A- 7—Finance and Budget Committee	150.00
A- 9—Audit	500.00
A-10—Secretary	4,000.00
A-11—Salary Taxes	580.00
A-12—Insurance	444.00
B- 1—Publication of Journal and Commission	4,866.00
B- 2—Cuts	100.00
B- 5—Journal Office Expenses	500.00
B- 6—Journal Travel	200.00
C- 2—Welfare Committee	800.00
C- 3—Legislative Committee	4,500.00

C- 4—Public Health Committee	1,600.00
C- 5—Public Relations Committee	9,500.00
C- 6—Medical Practice Committee	1,400.00
D- 1—President	2,000.00
D- 2—A.M.A. Delegates	1,375.00
D- 3—Contributions and Dues	1,300.00
D- 4—N. J. Health Congress	400.00
D- 5—Fall Clinical Conference	1,000.00
D- 8—Woman's Auxiliary	2,100.00
D-13—Medical Education Committee	100.00
D-15—Veterans Liaison Committee	250.00
E- 1—Board of Trustees	500.00
E- 2—Contingent	15,600.00
F —Legal	2,000.00
H —Pension	1,500.00
	$120,165.00

Recommendation: That the per capita assessment for 1950 be $30.00

That makes total anticipated budgetary requests amounting to $120,165, and we recommend this amount. By simple arithmetic we therefore must arrive at an assessment which will be necessary to cover this anticipated budget. In spite of all of the vast amount of money our treasurer apparently has, he has told you how the five thousand dollars was earmarked for certain funds, and other monies were for various assessments, so that there is only some $34,000 left. If this budget is to be as I stated it the amount of dues taken in in 1949 and applicable to this budget, $65,033, which is 7/12, makes the amount to be raised $55,027, and, by simple arithmetic, dividing it by the number of members we have it makes it necessary to set the *per capita* assessment at $30.00, and the committee so recommends.

PRESIDENT HORNBERGER: Thank you, Dr. Allman.

That supplemental report, together with the report as published on page 186 of the April JOURNAL, will be referred to Reference Committee "B".

Has the Publication Committee a supplementary report to offer?

DR. BARKHORN:

The Publication Committee asks that THE JOURNAL be allowed to resume liquor advertisements. Advertisement income is decreasing in amount both nationally and locally and the cost of publishing and distributing THE JOURNAL has increased tremendously, with a resulting deficit which may well increase this year.

These advertisements are dignified, are carried by many state journals and would help to continue the excellent journal we are publishing.

PRESIDENT HORNBERGER: Thank you, Dr. Barkhorn. The supplementary report, together with the report as found on page 186 of the April JOURNAL will be referred to Reference Committee "B".

Is there any supplemental report from the Medical Defense and Insurance Committee?

DR. HURFF: Yes, sir.

The number of professional liability policies now in force on members of the Society shows a slight increase over that reported last year, 3885 individual contracts having been issued. The loss experienced for the year shows a definite increase in claims. The present inflationary period has lead to higher awards in all branches of insurance and the doctor has not been made an exception.

Claims reported to the company during the past year were 89 against 59 for the preceding year. We have classified them under the following headings: x-ray burns 3, diathermy burns 6, other burns 2, injections 5, fractures 7, electric shock 1, broken needles 6, improper treatment 4, improper diagnosis 5, spinal anesthesia 2, tonsil operations 3, plastic surgery 2, other surgery 20, property damage 4, miscellaneous 19. These claims required the settling-up of $68,400 in reserves as compared to $31,050 last year. Other claims were settled including legal expenses which amounted to $57,905 against $41,720 in 1947.

Your Committee in their annual report for the preceding year referred to the grave danger from an insurance viewpoint of the complication arising in administering spinal anesthesia and the numerous claims that had been presented, one of which was closed by the payment of $14,000 with additional legal expenses. Further comment should be made in this connection, inasmuch as two new cases have been reported. Your Committee is aware that the Company is carrying heavy reserves on spinal anesthesia claims in suit and as they are in process of litigation, we, therefore, feel that judgment should be withheld until these suits have been either settled or tried.

The loss experience of physicians using x-ray for therapeutic purposes has shown for the past five years on fifteen claims reported as follows: settlements were made on nine claims amounting to $38,134.45; other claims set-up reserves in suit $2250; the four remaining were closed without any payment. Considering the premiums developed on this group against the losses reported by the Insurance Company the Committee feels that the 100 per cent surcharge is warranted. A large part of these losses have been the result of the patients claiming that they accepted x-ray therapy without having been informed of the potential possibilities of burns. The Committee is still negotiating with the x-ray specialists in the endeavor to establish a uniform procedure which would reduce the high ratio of these losses.

Last year's report referred to the waiving of the surcharge on the eye, ear, nose and throat specialists administering radium by nasopharyngeal applicators. The Company has now waived the additional charge for all physicians using radium for treatments providing they meet with underwriting qualifications. Unless they are so qualified they are not insurable for that special hazard.

During the past year we have received requests from members of the Society to investigate the status of several companies writing malpractice and health and accident insurance and have reported our findings to them. The Committee emphasizes the fact with pride, that the professional liability contract with the U. S. Fidelity & Guaranty Co. is unique in so far that it has not been duplicated in any other state. Furthermore, no competing company has endeavored to meet the liberal provisions of our present contract and recognize the society as the arbitrating factor in controversial issues. To date in the professional liability field, the U. S. Fidelity and Guaranty Company offers the best protection to the profession. Our relationship is one of confidence and respect, and we recommend the renewal of this contract with that Company through the official broker of the Medical Society, Faulhaber & Heard, whose offices maintain all records of communications and transactions for the Committee.

ACCIDENT AND HEALTH INSURANCE

Well over 50 per cent of the active members of The Medical Society of New Jersey are subscribers of the Physicians Special Policy of the National Casualty Company, the endorsed Company of the Society.

Although our age limit for the acceptance of risks is the 65th birthday there is no age limit for the renewal of the policy, so long as the doctor continues in the active practice of medicine and continues as an active member of the Medical Society. Every other company in the professional group insurance field has an age limit of 70 for the renewal of a policy even though the doctor may continue in active practice after that age.

In one of the enrollment drives for this insurance program four or five years ago, the State Society sent several letters to all the members, including registered mail, to make sure that everyone knew of the program and the age limit for acceptance of risks of the 65th birthday with renewals thereafter.

The National Casualty Company has continued its liberal policy of paying claims to our members to such a degree that another year has gone by with no dissatisfied claimants requesting the services of your Insurance Committee for arbitration, as provided for in the policy.

The plan of accident and health insurance developed for us by our authorized disability insurance representatives, E. & W. Blanksteen of Jersey City, has continued to be the most widely endorsed plan of disability insurance among medical and dental societies in the Metropolitan Area of New York; every major medical and dental society in New York and New Jersey now have this plan in operation with more than 50 per cent of their members as policyholders.

Accident and health insurance premiums and losses as well as premiums and losses of other casualty lines of insurance usually follow the pattern of current economic conditions. It is, therefore, to be expected that increasing premium volume has slowed down somewhat and disability losses are on the increase, and your Committee is happy in the knowledge that the National Casualty Company has always been considered one of the most conservatively operated insurance companies in the business, and that we can continue to look forward to the satisfactory operation of our accident and health policy plan with them.

Number of policyholders as of 2/28/49—2703.

We recommend the renewal of the accident and health contract with the National Casualty Company through E. & W. Blanksteen, who have covered the field so well and rendered splendid service to our members.

Information has come to the Chairman of the Committee to the effect that there is dissatisfaction of certain aspects of our Insurance Program. The Committee would urge wherever this exists that the doctors would communicate directly with the Chairman of the Committee as every effort will be put forth to correct and prevent misunderstandings. It must be remembered that if our present program is to be successful we must have unanimity and complete cooperation of our entire profession.

PRESIDENT HORNBERGER: The report will be referred to Reference Committee "D".

Is there any report from the Scientific Work Committee? Hearing none, that report as published will be referred to Reference Committee "D".

Is there any supplementary report from the Honorary Membership Committee? If not, that report as published will be referred to the Reference Committee on Resolutions and Memorials.

Has the Advisory Committee on Woman's Auxiliary, under Dr. Dodd, a supplementary report? None. That report as published on page 187 of the April JOURNAL will be referred to Reference Committee "D".

Has the Medical Education Committee, under Dr. Decker, any supplemental report to offer?

DR. DECKER: Yes, sir.

During the past year the Committee on Medical Education was reorganized. Each member was assigned as chairman of a subcommittee.

The subcommittee to explore the possibilities of a medical school in New Jersey, with Dr. Stuart Z. Hawkes as chairman, has accumulated data from many sources, and is ready to serve the commission recently appointed by Governor Driscoll.

The subcommittee on intern and resident training, with Dr. Samuel A. Cosgrove as chairman, has

considered the shortage of interns in New Jersey. One of the criticisms of New Jersey hospitals is the one year rotating internship. The internship prepares the physician for the general practice of medicine. If this cannot be properly accomplished in a one year rotating internship certain changes must be made. The internship must be lengthened to two years or the rotation changed to concentrate on the basic medical subjects to the exclusion of the specialties. Also it must be emphasized that the intern and resident should not be excluded from the care of private patients in the hospital.

The planned subject courses subcommittee, under Dr. Francis M. Clarke, in cooperation with Rutgers University has sponsored several courses. These have been given in surgical pathology, applied pathology, medicine, and elementary electrocardiology in Middlesex, Hudson and Union Counties. These courses are planned to cover an entire subject and are given in semesters of fifteen weeks. Tuition is approximately $100 a semester. The subcommittee is prepared to help organize these courses in any center that so desires.

The subcommittee on graduate lectures, under Dr. Ernest F. Purcell, cooperating with Rutgers University, has helped in organizing courses in Morris, Bergen, Cumberland and Mercer Counties. This subcommittee has set up a cross-index file of subjects and speakers that is most complete and aids considerable in selecting subjects for these lectures. These courses serve an important function in carrying advances in medicine to the busy practitioner.

The Rutgers plan subcommittee, under Dr. Henry B. Decker, has continued the operation of this plan in the Cooper Hospital. Some five students were admitted two years ago with the understanding that the plan was not perfected and that they would criticize it. The plan operated successfully for eighteen months. At the end of that time it was felt that all of its weaknesses were uncovered. During the past six months arrangements to correct these defects have been made and the plan will resume operation within the next two months. This plan will offer the general practitioner an opportunity to round out his education in the care of ambulatory patients.

The committee has prepared an exhibit, outlining its functions, which is presented amongst the scientific exhibits at this meeting.

PRESIDENT HORNBERGER: Thank you, Dr. Decker. That report will be referred to Reference Committee "D".

I understand that Dr. Oliver L. Stringfield, from our neighboring State of Connecticut has just come into the hall. I would like at this time to recognize Dr. Stringfield.

DR. STRINGFIELD: It has been quite a number of years since I have been down here. As you all know, I was the "chronic" delegate from Connecticut. I want to bring to you the greetings of the Connecticut State Medical Society and wish for you a most successful meeting.

I would like to say one or two words about our activities in Connecticut. In 1936 we reorganized our Medical Society, and at that time started, as you all know, our fulltime Executive Secretary, patterned after New Jersey. We also started our JOURNAL. Two years ago we appointed a committee to take stock of our organization and to re-evaluate our activities. This committee will make its final report next week at our House of Delegates.

You all down here in New Jersey are rather speedy fellows. We, in Connecticut, are rather sluggish. We would like to see first what the other fellow does, and then take advantage of his mistakes. So this year we finally have a prepaid medical plan in Connecticut, and 85 per cent of the physicians in Connecticut have signed up in our plan.

Again let me thank you for this opportunity, and I just wish for you a wonderful meeting, and I am certain you are going to have it. Thank you, very much.

PRESIDENT HORNBERGER: Thank you, very much, Dr. Stringfield—we are delighted to have you here.

Dr. Murray, have you any supplemental reports from the Annual Meeting?

DR. MURRAY: The Committee on Annual Meeting recommends that the place and date for the 1950 Annual Meeting be Haddon Hall, Atlantic City, May 22-25, 1950.

PRESIDENT HORNBERGER: Thank you. The recommendation and report as published on page 188 of the April JOURNAL will be referred to the Committee on Miscellaneous Business.

Scientific Program—any supplemental report?

DR. FRANCIS M. CLARKE: There is no supplemental report.

PRESIDENT HORNBERGER: Thank you. That report, also, as published on page 188 of the April JOURNAL is referred to the Reference Committee on Miscellaneous Business.

Scientific Exhibits Committee, Dr. Yaguda. Have you any supplemental report?

DR. YAGUDA:

The stimulus given our New Jersey physicians by the opportunity presented for displaying their accomplishments at the Annual Meetings of The Medical Society of New Jersey has made possible the presentation this year of a series of scientific exhibits of extraordinary value. Of the thirty-three exhibits, twenty-six originate in this state.

The first section of nine cancer exhibits covers the latest developments in etiology, diagnosis including the newer cytologic technics, and the treat-

ment of cancer. The remaining exhibits cover a wide variety of subjects, many depicting original thought and work on such important topics as respiratory and circulatory disease, atherosclerosis, venous blood pressure in children, occupational disease, etc. Only six educational exhibits were booked this year because of lack of space.

The committee suggests that in the future, earlier designation of the membership of the committee be attempted so as to allow a longer time for the organization of the future exhibits.

PRESIDENT HORNBERGER: Thank you. This report is referred to the Committee on Miscellaneous Business.

Dr. Vincent Butler, Chairman of the Welfare Committee—have you any supplementary report?

DR. VINCENT BUTLER: The Welfare Committee has no report, but the Subcommittee on Medical Practice has an additional report, and Dr. Murphy would like to read it.

PRESIDENT HORNBERGER: That will come subsequently on the agenda. Thank you, very much, Dr. Butler. The Report of the Welfare Committee will be referred to Reference Committee "E".

Next, the Subcommittee on Legislation—Dr. C. Byron Blaisdell.

DR. BLAISDELL:

As we indicated in the Annual Report of this Committee, due to the fact that the Congress and State Legislature had not taken any definitive action on the public health measures which we were following at the time that report was written, it again becomes necessary to make our supplementary report the *main* report of this Committee.

STATE LEGISLATION

Out of the eighty or more bills receiving consideration, we shall report on a few of the more important public health measures in which we were interested and upon which the Committee took action.

S. 94, sponsored by the Society, failed of passage. Purpose of this bill was to make it necessary that commercial clinical laboratories operating in the state be under the direction of a licensed physician. There were no prohibitory provisions with respect to laboratory technicians, provided they were employed in laboratories operating under medical supervision. The bill, as originally introduced, however, did provide that all commercial clinical laboratories in existence *less than five years prior to enactment of the Act* would be compelled to operate under medical supervision.

This latter provision provoked immediate opposition, so much so that the Committee felt impelled to agree to the deletion of the "five year" clause. As amended, therefore, the prohibitory provisions would have affected only laboratories which opened subsequent to the passage of the Act. Even with this concession, strong opposition continued against the measure, spearheaded by the New Jersey Chapter of the American Chemical Society. Notwithstanding what appeared to be effective contacts with the senators by our county legislative keymen and by clinical pathologists, we were unable to persuade the majority of the dominant party that this was a good bill and in the public interest. It remained in the Public Health Committee and was not moved.

As a partial off-set to this disappointment, however, we were able to defeat, in caucus, A. 447 which would have created a Board of Examiners, for medical technologists to supervise clinical laboratories.

S. 25, approved by this Committee, which makes compensable, under the Workmen's Compensation Act, all occupational diseases resulting from hazards in employment, was enacted into law.

S. 189, sponsored by the State Department of Health and approved by this Committee, which would have provided for the creation of Regional Health Departments by joint action of municipalities within a county, failed of passage. It is our understanding that at no time did this bill receive more than seven votes in the caucus of the majority party.

SJR. 6, approved by the Committee, to provide for a Committee appointed by the Governor to study facilities and future needs of the chronic sick, was enacted into law.

A. 89, which would have removed the present provisions with respect to inguinal hernia from the Workmen's Compensation Act, passed the Assembly but was not acted upon in the Senate.

The bill, as written, was disapproved by this Committee. Upon advice of the Advisory Committee on Workmen's Compensation, however, it was recommended that the 4th and 5th points which must be satisfied with respect to hernia, viz., (a) notice to the employer within 24 hours after the occurrence of hernia, and (b) attendance of a licensed physician be required within 24 hours, both be lengthened to 72 hours.

A. 114, disapproved by the Committee, would have permitted beneficiaries of the Workmen's Compensation Act also to become eligible for benefits under "Temporary Disability Benefits Law". This measure passed in the Assembly but was not acted upon in the Senate.

A. 347, to create a separate Board of Chiropractic Examiners, and disapproved by us, remained in Committee.

A. 358, approved by the Committee, and which places the regulation of the sale of a number of new drugs which are "unsafe for indiscriminate use by the public" under the control of the Board of Pharmacy, passed both Houses of the Legislature.

A. 449, disapproved by the Committee, which would have provided for the establishment of a Cancer Center by the Department of Institutions and Agencies, failed of passage.

FEDERAL LEGISLATION

For the purpose of giving consideration to four public health measures pending in Congress, a

meeting of the Legislative Committee was held in Newark, April 14.

S. 247—"National Science Foundation Act of 1949," which has strong bi-partisan senatorial sponsorship (including Senator Smith of New Jersey)— was unanimously passed in the Senate and is now pending in the House. This would establish an independent agency in the Executive Branch of the government to be known as "the National Science Foundation". "The Foundation is authorized to develop and encourage the pursuit of a national policy for the promotion of basic research and education in the sciences". The Foundation will have four divisions, the first listed being "A Division of Medical Research". The composition of the Foundation, and the provisions for the conduct of its affairs are of a character as to apparently insure sound organization, functioning and control. This measure has the approval of the Legislative Committee of the A.M.A., with whom we are in agreement.

The next two bills, S. 522 and S. 1411, to quote from our March 6th report, "if passed unmodified, may, with a few others to be anticipated, socialize the practice of medicine by a slower process, but just as definitely would the passage of the Murray-Wagner-Dingell Bill".

S. 522—This bill would "amend the Public Service Act to authorize assistance to states and political sub-divisions in the development and maintenance of local public health units, and for other purposes".

To states which submit a satisfactory "State Plan" would be appropriated a share of Federal funds allocated for this purpose, based upon a formula which takes into consideration the population and economic resources of each of the several states. The whole plan would be under the control of the Surgeon General of the Public Health Service.

This measure has been approved by the Legislative Committee of the A.M.A.

Strong exception to certain provisions of a similar bill before Congress last year—S. 2149—were made to Senator H. Alexander Smith; and he (Senator Smith) agreed at that time that there was danger in this legislation. The particular provision to which we objected last year, and which is again present in this year's bill—S. 522—is the authority given to the Surgeon General, *by regulation to prescribe* "types of health services, ... *which shall be considered basic* public health services for which funds may be expended under state plans. . ." (Italics ours.)

Last year, Dr. Miller, testifying for the Board of Trustees of the A.M.A. on a House version of a bill similar to S. 522, submitted a statement recommending, that instead of giving authority to the Surgeon General to prescribe by regulation the types of health services "which shall be considered basic public health services" that the recognized basic public health services which should be considered basic be listed. His statement contained a list of generally recognized basic public health services.

S. 1411, "National School Health Services Act of 1949". This bill, which also has wide bi-partisan support, was introduced March 25th and immediately reported without amendment by the Senate Committee on Labor and Public Welfare. This measure provides for an appropriation of $35,000,000 yearly to the states in accordance with a variable formula. It calls for the setting up of a "State Plan" which (a) "shall provide for medical and dental examinations at periodic intervals for all school children in the state. . . ."; (b) "shall provide for treatment of such children for physical and mental defects and conditions shown by such examinations whenever the parents of such children are unable to provide treatment"; (c) *may* provide for the prevention *and treatment* of such physical and mental defects and conditions *for all* school children." (Italics ours.)

It is the opinion of our Committee that provision (c), which would make it possible for states to provide treatment for *all* school children, should be deleted.

According to the report of the Washington Office of the A.M.A., this bill was "approved in principle". "Several amendments were suggested, among them defining the function of the family physician". Last year, the prototype of this bill was not approved by the A.M.A. To maintain this year a united medical front, we feel it advisable to follow A.M.A. leadership but informing A.M.A. when its policy is at variance with our own recognized policies.

At the meeting of the Legislative Committee April 14th, S. 1456 was briefly discussed. This is the bill which has been sponsored by Mr. Hill and three other senators which would make possible hospital and medical care coverage through utilization of voluntary service plans for the medically indigent. With respect to this measure, the Washington Office of the A.M.A. advises as of April 8th that the Executive Committee of the Board of Trustees took the following action: "Recognizing that the bill exemplifies many features of the twelve-point program, the Committee nevertheless reserved opinion until an opportunity may be heard to consider certain other bills which it is reported are about to be introduced". With this we agree.

S. 1581—Taft-Smith-Donnell Bill. As this is written, a copy of the printed bill is not available. This, apparently, is an omnibus bill which contains features of last year's Taft-Smith-Donnell Bill (S. 445), as well as provisions for grants-in-aid to the states for increased hospital construction, state aid in the development of school health programs, and for public health units.

Countering it has come more recently President Truman's proposal, comparable to S. 5. It is impossible for us to advise the Society with respect to the details of these bills. Our position with respect to the Administration bill, proposing compulsory health insurance, is one of opposition. The Taft-Smith-Donnell Bill follows the principles which we approve and should the American Medical Association support it, we would do well to follow the lead.

PRESIDENT HORNBERGER: Thank you, Dr. Blaisdell. That was a very comprehensive and well-prepared report. It is referred to Committee "E". Now, Dr. Murphy for the Subcommittee on Medical Practice.

DR. HERSCHEL S. MURPHY (Medical Practice): Mr. President, Members of the House of Delegates: I have a supplementary report for the Medical Practice Committee.

SUPPLEMENTARY REPORT TO THE HOUSE OF DELEGATES BY THE WORKMEN'S COMPENSATION COMMITTEE OF THE MEDICAL SOCIETY OF NEW JERSEY

Within the last two years there has been a tendency to introduce claims for permanent neurologic changes in a large proportion of compensation cases where apparently the condition is local or not involving the central nervous system.

For many years most of our neurologic compensation examinations have been directed toward cases where there were evident head injuries or where serious organic changes or losses were developed following compensation accidents. In the opinion of my Committee this is proper. However, I have noticed in the last two years the increasing tendency to add claims for a large amount of permanent disability for pure traumatic neurosis on minor cases. At least in my area which is Passaic and Bergen County this is becoming the fad. (I think this is a very serious matter.) Not only is it going to greatly increase the employer's rate of insurance which automatically will increase the cost of producing the manufactured articles, but more important it is going to decrease the workman's efficiency both mentally and physically. We are going to have a lot of neurotics on our hands because unquestionably when a man is told he has ten, twenty or thirty per cent permanent disability due to a simple neurosis, often introduced into his mind by a neurologist or primarily by his attorney, he immediately is going to feel that he is no longer able to earn a proper livelihood. He is going to depend more and more on society to sustain him. (This is not hearsay on my part, it is by actual observation.)

I would like to ask the House of Delegates to look into this matter and my Committee on Workmen's Compensation would be very glad to cooperate with them. I am also going to take this matter up at the first meeting of the Advisory Committee on Workmen's Compensation which is to meet within the next few weeks and have this matter looked into through that department because I feel that some work will have to be done through the Commissioners and Deputy Commissioners in order to educate them along these lines.

PRESIDENT HORNBERGER: Thank you, Dr. Murphy. That report, together with the report published on page 195 of the April JOURNAL will be referred to Reference Committee "E".

The Subcommittee on Public Health, Dr. Blaugrund.

DR. BLAUGRUND:

The Legislature of New Jersey, at its recent session, has adopted Senate Joint Resolution No. 6, which provides for a commission to be established for the study of medical, surgical and economic problems and needs pertaining to care of long-term illness or chronic disease. The resolution requires that twelve persons shall be appointed by the Governor to comprise this commission, at least two of whom shall be physicians.

It is suggested that The Medical Society of New Jersey express its interest in this subject and in the study to be made, its commendation of the action of the Legislature in taking this step, and that the Society offer its cooperation and the full facilities of the Society to assist this commission in its work. It is further suggested that we notify the Governor that, if desirable, The Medical Society of New Jersey will welcome the opportunity to suggest names of physicians and other persons interested in this subject and qualified to contribute to the work of the commission.

PRESIDENT HORNBERGER: Thank you. The supplementary report, together with the report as published on page 194 of the April JOURNAL is referred to Reference Committee "E".

The Subcommittee on Public Relations—Dr. Wm. E. Bray, I believe has a supplementary report.

DR. BRAY:

The report of the Public Relations Committee as published in The JOURNAL is all inclusive up to the last briefing session of the Speakers Bureau. On Sunday, April 3, Dr. Richard Reager met with 100 members of the Speakers Bureau for a follow-up session of the public speaking course outlined by the Public Relations Committee. We feel that the Speakers Bureau is our most effective method of carrying our message to the general public. By making use of trained speakers in individual counties a more intimate appeal can be made.

The State Society has done about all it can do in preparing the counties to carry on this work. Speakers have been trained and source material supplied. Further material will be supplied as developments occur.

Speakers, particularly those who have participated in debates on compulsory health insurance, have found it is essential to be sharp, absolutely correct factually, and completely informed. All speaking engagements in the counties should be cleared by the director of the county speakers bureaus so that incorrect information will not be disseminated and so that all speakers claiming to represent the Medical Society will have been authorized to do so. Your Committee urges that the county societies endeavor to keep up the enthusiasm thus far shown. We suggest frequent meetings with rehearsals and try-outs over the summer months

when the possibility for real speaking engagements may be meager. This is important if each county is to be ready in the fall for a real energetic campaign against compulsory health insurance.

According to the direction of the A.M.A., we have made contact with state organizations in an effort to gain their support. In addition to the organizations mentioned in our previous report, the Board of Directors of the Federation of Women's Clubs have voted to support us. The D.A.R. of New Jersey adopted a resolution of confidence. The State Pharmaceutical and Chiropodists organizations have endorsed our stand. The Farm Bureau has issued a letter to every Secretary of County Boards of Agriculture requesting them to welcome representatives of the Medical Society to speak at one of their regular meetings. It is highly important that resolutions of confidence be obtained from the local branches of these national and state organizations.

PRESIDENT HORNBERGER: Thank you. That report, together with the original report published on page 189 of the April JOURNAL will be referred to Reference Committee "E".

Have any of the Advisory Committees to the Subcommittee on Public Health any supplementary reports to offer?

If not, the reports as originally drafted will be referred to Reference Committee "E".

Have any of the Advisory Committees to the Subcommittee on Medical Practice any supplementary reports to offer?

Hearing none, they will be referred to Reference Committee "E".

Have we any supplementary reports from the Emergency Medical Services Committee? Hearing none, that report published on page 183 of the April JOURNAL will be referred to Reference Committee "C".

Military Service Committee? Hearing none, that report as published on page 182 of the April JOURNAL is referred to Reference Committee "C".

The Veterans Liaison Committee. Hearing no supplementary Report, that report as published on page 183 of the April JOURNAL is referred to Reference Committee "C".

Medical Service Administration, Dr. Norman M. Scott.

DR. SCOTT: No supplementary report, Mr. Chairman.

PRESIDENT HORNBERGER: Thank you, Dr. Scott. Your report as published on page 209 of the April JOURNAL is referred to Reference Committee "C".

Medical-Surgical Plan of New Jersey.

DR. SCOTT: Yes, Mr. President and Members of the House of Delegates: The supplementary report of Medical-Surgical Plan of New Jersey contains an outline of the new subscription contracts of the $5000 income level, in accordance with the action of this House in 1948. Attached to the report is the April issue of a pamphlet which we are distributing each month to every member of the Society in an effort to keep them up-to-date on the progress of the Plan and the affairs of the Voluntary Medical Service Plan Movement throughout the nation.

Note how: (1) the number of subscribers has progressively increased; (2) the ratio of administrative costs has progressively decreased, as administrative technics have developed, from 51 per cent in 1942 to 15 per cent of subscription income in 1948; (3) the amount paid for medical care has increased from 48.4 per cent of income in 1942 to 79 per cent in 1948.

The current administrative cost is 13.7 per cent of income and the amount payable for medical care is 79.5 per cent of income.

Enrollment March 31, 1949	276,913
Net New Enrollments first quarter 1948	18,759
Net New Enrollments first quarter 1949	40,309
Participating Physicians March 31, 1948	3,700
Participating Physicians March 31, 1949	4,300

NATIONAL BLUE SHIELD ENROLLMENT

Fifty-eight Plans, each organized by a unit of organized medicine, as of December 31, 1948, had a total enrollment of 10,370,819 persons. This is a gain of 43 per cent, an additional 3,128,628 persons enrolled, in 1948. The percentage gain of Medical-Surgical Plan for the same period was 67 per cent.

Don't disparage, don't belittle, the voluntary

MEDICAL-SURGICAL PLAN
PROGRESS REPORT

Year Ending	Earned Subscription Income	Claims Incurred	Claims Incurred (% of Income)	OP. Cost (% of Income)	Persons Enrolled End of Period
Dec. 31, 1942	$ 11,148.78	$ 5,394.50	48.4	51.1	4,131
Dec. 31, 1943	74,498.47	49,562.50	66.5	23.9	16,015
Dec. 31, 1944	187,708.74	135,605.75	72.2	18.9	30,427
Dec. 31, 1945	326,530.37	208,288.36	63.7	17.5	49,441
Dec. 31, 1946	540,227.83	370,576.10	68.6	16.8	88,088
Dec. 31, 1947	947,945.57	681,922.85	72.0	17.1	143,700
Dec. 31, 1948	1,524,814.76	1,203,651.50	79.0	15.0	236,604

medical service plan movement. It is a success. American medicine is committed to it. It represents the constructive phase of American Medicine's program. Its future development and success depend upon your support.

How Many People Are Insured Against the Expense of Medical and Hospital Care?

The latest estimate, as of December 31, 1947, computed to avoid duplication, for American Life Convention and a group of Insurance Companies is as follows:

	Hospital	Surgical	Medical
Insurance Companies.	20,823,000	15,338,000	2,069,000
Blue Cross-Blue Shield	27,986,000	7,080,000	2,985,000
Other Organizations..	3,775,000	3,829,000	3,844,000
Totals	52,584,000	26,247,000	8,898,000

Support the program of the American Medical Association. Support the program of the State Society. Support the program of your County Society. Support the voluntary medical and hospital service plan movement. Support Medical-Surgical Plan of New Jersey.

The New Contract

Medical-Surgical Plan of New Jersey has approved a new Group Enrollment Subscription Contract, which it will announce to the House of Delegates of The Medical Society of New Jersey at its annual meeting in Atlantic City.

This new contract is designed to meet the current socio-economic situation. It provides for full payment benefits for eligible services rendered Subscribers and Enrolled Dependents in cases where the annual income of the Subscriber is not more than $5000. It will provide for an increase in the current subscription rate and will pay increased amounts to physicians.

The Contract form will be ready for presentation to currently enrolled groups and potential groups about June 1, 1949.

It will replace current Subscription Contracts at the expiration date of each current contract or at an earlier date if agreed to by the enrolled group.

We request the indulgence of the profession during the coming year, a change-over period, during which some of both types of contracts will be in force. It will take about one year to completely eliminate the existing old forms of contract.

You will be kept informed by special literature, the Society Journal and by this pamphlet of information to be issued at monthly intervals.

EVOLUTION OF THE PLAN

The Beginning

1. One of the objectives of The Medical Society of New Jersey, announced in June 1938 was, "To make available to every man, woman, and child in New Jersey adequate personal and sympathetic medical care, preventive and curative, at the lowest cost compatible with efficient service."

II. The principle of voluntary health insurance was endorsed by the House of Delegates of the American Medical Association on September 16, 1938. Immediately following this action, Dr. William Carrington, President of the Society, appointed a Committee under the Chairmanship of Dr. Hilton S. Read to study the subject and to make recommendations regarding adaptation of this principle to the needs of the people of New Jersey. This first committee, a fact finding committee, reported in Decemher 1938 to the effect that some form of voluntary health insurance could he evolved which would he adaptable to the needs of the people of New Jersey.

III. A Planning Committee under the Chairmanship of Dr. Edward Sprague reported in February 1939 on the principles governing such an effort, to the effect that (1) it would require special legislation; (2) that it must he on a non-profit hasis; (3) that all fully licensed physicians of New Jersey must be eligible to participate; (4) that free choice of physician and patient must be preserved; (5) that administrative control, direct or indirect, and policies must he vested in The Medical Society of New Jersey through its power of nomination to the Board of Trustees of the Plan; (6) that the scope of medical services might initially be limited. The Committee recommended the appointment of a Founding Committee.

IV. The Founding Committee under the Chairmanship of Dr. Elton Lance, first as a Committee and later as the Board of Governors of Medical Service Administration, continued the study of the problem and evolution of its mission, accomplishing the passage of an enabling act in May 1940, the approval by the Trustees of the Society, of a "Medical and Surgical Plan for Hospitalized Patients" in July 1940, the incorporation of the Plan and cooperation of Hospital Service Plan of New Jersey in the spring of 1942. Time does not permit a detailed presentation of the tremendous amount of work done hy this group except to emphasize that every action taken, and every recommendation made to the Society, was predicated on the best interests of the future welfare of medicine and the welfare of the people of New Jersey.

V. The Founding Committee prior to requesting approval of a "Medical-Surgical Plan for Hospitalized Patients" had interviewed many representatives of industry and employed groups who expressed their needs as being for protection against the cost of serious illnesses. This led to the practical definition of a serious illness as one requiring hospital bed occupancy and treatment. Adequate medical care was more difficult to define, but the Committee felt that if the Plan was to provide such care its Subscription Contract must make provisions for medical, surgical, obstetrical, anesthesia and consultation services rendered hospitalized patients. This was a much hroader program than contemplated, at that time, in any other State. To provide payment for services rendered under this hroad program, within the ability of people to pay, has necessitated adherence to sound underwriting principles to avoid the development of adverse health risks in enrolled groups.

VI. From the ahove it is apparent that the function of the Board of Trustees of Medical-Surgical Plan is to make available a Subscription Contract for the payment for eligible medical care rendered persons admitted to hospitals for treatment at a cost the people of New Jersey can afford to pay, and that the Plan be designed and conducted within the present framework of the practice of medicine.

The Present Problem of Medical-Surgical Plan

Medicine and the individual members of the medical profession are challenged hy the ever increasing agitation for federal control and regimentation of the individual physician and of the health program of this country. Medical-Surgical Plan and similar plans represent the positive and constructive effort of the profession in meeting this challenge.

To achieve maximum effectiveness, the immediate need of Medical-Surgical Plan is more rapid increase in the number of enrolled persons. To accomplish this, and at the same time maintain sound underwriting principles, requires that the Plan accommodate itself to current socio-economic conditions and make the Plan more attractive to a greater numher of people. The greatest deterrent to enrollment is the present unrealistic low income levels governing complete service benefits.

Satisfactory enrollment and sound underwriting are promoted by participation of the employer in payment of the contract rate of the Subscription Contract. Both labor and industry are becoming aware of the advantages of employer participation in maintaining the health and efficiency of employees and in improving lahor-management relations. In 38 per cent of the Plan's enrolled groups the employer now makes a contrihution toward, or pays the entire cost. It is anticipated that in the near future the contribution toward or payment of the contract rate hy the employer will hecome common and accepted practice, either on a purely voluntary basis or through the terms of lahor-management contracts.

Conclusions

Medical-Surgical Plan is now presenting the essentials of a new Subscription Contract providing for complete payment for eligihle services rendered Suhscrihers and enrolled Dependents in cases where the annual income of the Suhscriher is not more than $5000, as approved hy this House of Delegates at its annual session in April 1948. This new contract has the approval of the Department of Banking and Insurance, and was approved by the Board of Trustees of the Medical Society on February 6, 1949, and by the Board of Trustees

of Medical-Surgical Plan at a meeting held on April 7, 1949. It will replace the present Subscription Contract at the annual expiration date of each present Subscription Contract or prior thereto with the cooperation of the employer and enrolled group. Now, tbat means that it will be perhaps one year before all our old contracts are eliminated. In the meantime, there will he both types of contracts in effect and we will have to ask your indulgence during this change over the year which will be confusing.

The essential changes are, the new income level, the new subscription rate, the new schedule of payments to physicians and the elimination of the waiting period for tonsillectomy. The new Contract forms will be ready for presentation to our currently enrolled groups and prospective groups at the earliest practical time, probably about June 1, 1949.

SUBSCRIPTION RATE

	Single Contract (no maternity)	One Parent and Child or Children (no maternity)	Family of Two or More Persons (with maternity)
Monthly Subscription Rate.	$1.16	$2.32	$3.84

PRESIDENT HORNBERGER: Thank you, Dr. Scott. That will be referred to Reference Committee "C", along with the original report as presented on page 209 of the April JOURNAL.

Do we have any supplementary reports from the New Jersey Health Congress? Hearing none, the report as printed on page 210 of the April JOURNAL will be referred to Reference Committee "D".

State Board of Medical Examiners of New Jersey? Any supplementary report? Hearing none, that report as published on page 211 of the April JOURNAL will be referred to Reference Committee "D".

Do we have any resolutions, memorials, amendments to the Constitution or By-Laws or other business to be presented by any of the delegates from the county societies or any member of the House of Delegates?

DR. HENRY C. BARKHORN (Publication): Mr. President and Members of the House of Delegates: I have an enabling resolution for the supplementary report of the Publication Committee, which is as follows:

WHEREAS, the income of the JOURNAL of The Medical Society of New Jersey has decreased materially because of lessened advertising space used, be it

RESOLVED, that the Publication Committee be allowed to accept liquor advertisements.

PRESIDENT HORNBERGER: Thank you, Dr. Barkhorn. That resolution will be referred to Reference Committee "B".

Are there any other resolutions to be presented from the floor of the House of Delegates?

DR. BUTLER: May I present something from the Hudson County Delegation?

The Hudson County delegation unanimously agrees that the availability of medical care to the people of New Jersey can be greatly improved and the costs of medical care more easily met by a more adequate voluntary health insurance program. In both the Blue Cross Hospitalization Plan and the Medical-Surgical Plan of New Jersey, several inadequacies have been brought to the attention of the delegates by the members of the Speakers' Bureau.

Therefore, we recommend that the following changes in the contracts and in the management of the hospitalization and medical-surgical plans:

1. That the people of New Jersey should be made aware ot the existence and availability of these two plans through the medium of organized advertising campaigns, the expenses of which campaigns should be defrayed by the Plans themselves and also by The Medical Society of New Jersey.
2. That contracts should be set up for the accommodation of individual subscribers.
3. That subscribers who are now enrolled under group contracts should, upon loss or discontinuance of employment, have the privilege of continuing their insurance as individuals, without any loss of benefits.
4. That individual subscribers to either of the Plans should enjoy the same benefits as do those enrolled under a Group Contract, even if such equalization of benefits should entail an increase in the rate of subscription for an individual contract.
5. That every doctor should he qualified and empowered to explain and complete contract negotiations with his patients.
6. That, since ninety per cent of the people of New Jersey, who are potential subscribers to tbese Plans have incomes of less than $3600 per year, a policy should be devised for them, at the lowest possible premium. These are the people who are most in need of adequate health insurance, and we do not believe in raising the premium on their policies in order to pay more adequate fees to the doctors.
7. That the basic fees for surgical services under the Medical-Surgical Plan of New Jersey should apply to family incomes up to $3500 per year, and that adjusted fees for services to families whose income exceeds that figure should be computed uniformly upon the basis of ten per cent increase of the basic fee for every $500 of income in excess of $3500 and up to $7500. The following schedule is offered as illustrative:

Income	Basic Fee	Adjusted Fee (maximum)
$3500	$100	None
4000	100	$110
4500	100	120
5000	100	130
5500	100	140
6000	100	150
6500	100	160
7000	100	170
7500	100	180
Computation on higher basic fee:		
$3500	$150	None
4000	150	$165
4500	150	180
5000	150	195
5500	150	210
6000	150	225
6500	150	240
7000	150	255
7500	150	270

PRESIDENT HORNBERGER: Thank you, Dr. Butler. That resolution from the Hudson County Medical Society will be referred to Reference Committee "C".

Now, is there anything else to come before this present session of the House of Delegates? If not, I shall entertain a motion to adjourn.

(The meeting of the House of Delegates then adjourned at 1:05 p. m.)

Wednesday, April 27, 1949, at 12:15 P. M.

The meeting of the House of Delegates convened at 12:15 o'clock, President Hornberger presiding.

PRESIDENT HORNBERGER: Will the meeting please come to order. May I have the report of the Committee on Credentials?

DR. WATSON B. MORRIS: Mr. President, House of Delegates: It is my pleasure to report that we had 280 delegates at 10 o'clock this morning. And a very interesting observation taken yesterday, we had 65 per cent of our delegates at that time. Total registration today, including our guests, is 1825.

PRESIDENT HORNBERGER: Thank you very much, Dr. Morris. That is an encouraging report.

The only order of business to come before this session is the election of officers. Before proceeding, however, may I call your attention to the *Daily Bulletin* which can be obtained at the Registration Desk. This is a new venture, and we feel you will find it very helpful. I now call for the report of the Nominating Committee.

DR. ROYAL A. SCHAAF: Your Nominating Committee met on the evening of April 25, with myself as chairman and with all counties represented. We hereby file the following nominations:

For President-Elect ..... Aldrich C. Crowe
First Vice-President .. Sigurd W. Johnsen
Second Vice-President..Harrold A. Murray
Secretary ..... Earl LeRoy Wood
Treasurer ..... George J. Young

These are all for one-year terms. In addition, your Committee present the following nominations:

Trustees, First District for three years, Elton W. Lance and Royal A. Schaaf; Third District for one year to fill the unexpired term of George W. Fithian, deceased, William C. Wilentz; Fourth District for three years, William E. Dodd; Councilor, Third District for three years, Barclay S. Fuhrmann; *A.M.A. Delegates and Alternates;* Delegate for two years, Joseph F. Londrigan, Alternate for two years, Albert Kump; Delegate for two years, William F. Costello, Alternate for two years, Walter F. Phelan; *Delegates and Alternates to other states:* New York—Delegate for one year, Aldrich C. Crowe, Alternate for one year, D. Ward Scanlan; Connecticut — Delegate for one year, Blackwell Sawyer, Alternate for one year, C. Byron Blaisdell; *Standing Committees:* Scientific Work for five years, John W. Gray; Publication for three years, Joseph E. Mott; Publication for one year, to fill the unexpired term of J. Lawrence Evans, resigned, Ralph M. L. Buchanan.

Respectfully submitted, Royal A. Schaaf, Chairman, Hilton S. Read, Secretary.

PRESIDENT HORNBERGER: Thank you, Dr. Schaaf.

Members of the House, you have heard the report of the Nominating Committee. What is your pleasure?

It was moved, seconded, and unanimously carried on motion, that the report be accepted.

The House then proceeded to ballot on candidates. As each name offered by the Nominating Committee was individually read, the Chair called for nominations from the floor, and there were none. In each instance a motion was made, seconded and carried that ballots be closed and that the Secretary be instructed to cast the unanimous ballot of the House for the candidate.

The Chair thereupon declared the candidates selected by the Nominating Committee to be elected to their respective offices. There being no further business before the meeting, on motion, the session was adjourned at 12:30 p. m.

Wednesday, April 27, 1949, at 2 P. M.

DR. HORNBERGER: The meeting of this House of Delegates is called to order.

Mr. Secretary, do we have a quorum present?

SECRETARY: We do.

DR. HORNBERGER: A quorum being present, we shall hear first the report of the Reference Committee on Constitution and By-Laws, Dr. Frederick S. Taber, Chairman.

DR. TABER: Mr. President and fellow delegates: This is the report of your Reference Committee on Constitution and By-Laws. The first matter of business refers to By-Laws, Chapter 8, present section 13.

"Present Section 13 to be changed to Section 14 and so on, so that the final Section 17 shall become Section 18.

Section 13, being Advisory Committee to Woman's Auxiliary.

Paragraph (a) The Advisory Committee to the Woman's Auxiliary shall consist of five members. It shall at all times be cognizant of the activities of the Woman's Auxiliary and shall be the official liaison body between the Auxiliary and the Medi-

cal Society. It shall act as an advisory body in answering questions submitted to it by the Auxiliary, and shall be responsible for explaining the policy and programs of the Medical Society in matters pertaining to the Auxiliary.

Paragraph (b) It shall receive and consider suggestions from the Auxiliary for activities in which the Auxiliary might assist the Medical Society.

Paragraph (c) It shall make frequent reports on the Auxiliary's activities to the Tustees, and an annual report to the House of Delegates.

Paragraph (d) It shall ascertain the need for funds by the Auxiliary and shall have supervision over the expenditures of such funds appropriated by the Society.

Paragraph (e) This Committee shall recognize the close relationship between the activities of the Auxiliary in matters pertaining to the policy and programs of the Medical Society and the activities of the committee of the Medical Society having jurisdiction over such activities. Therefore, any program of the Auxiliary in this connection shall be sponsored by that committee of the Medical Society whose duty it is to deal with that particular activity, and after approval by the Board of Trustees, shall be financed within the limitations of the budget allotted to that particular committee.

Paragraph (f) This Committee shall recognize that an important function of the Woman's Auxiliary is to act as hostess at the Annual Meeting of the Society and to the Auxiliary of the American Medical Association when it meets in New Jersey, and that no other activities of the Auxiliary shall detract from this function.

The word "implementing" in paragraph (a) of the amendment originally presented was changed by the Reference Committee to the word "explaining". This was the only change made in this By-Laws amendment and your Reference Committee recommends its adoption.

DR. HORNBERGER: Members of the House of Delegates, you have heard the recommendations of the Reference Committee relative to the adoption of this section of the report.

It has been properly moved and seconded that this section of their report be adopted. Any discussion? All in favor give their consent by saying aye. Contrary? So ordered.

This having been read the required number of times, and having been voted upon by this House of Delegates, it now becomes a part of the By-Laws.

DR. TABER: Your Reference Committee recommends that the present paragraph be lettered "A" and the following paragraph be added to Section 6: This is By-Laws, Chapter 5. The present By-Laws, Chapter 5, merely states the officers and members of the elected standing committees shall assume office immediately after the adjournment of the annual meeting at which they are elected.

It is proposed that this section be lettered paragraph "A" and be followed by Paragraph "B" relative to the term of office of the Delegates and Alternates to the A.M.A., which would read: "Paragraph B. The term of office of Delegates and Alternate Delegates to the American Medical Association shall begin on January 1st of the year following their election. Their terms of office shall be for two years, ending on the second December 31st thereafter."

The Reference Committee recommends the adoption of the amendment to the By-Laws, Chapter 5.

DR. HORNBERGER: You have heard the report of the Reference Committee. What is the pleasure of this House?

It has been properly moved and seconded that this section of the report be adopted. Any discussion? All those in favor give their consent by saying aye. Contrary? So ordered.

DR. TABER: Constitution, Article 4, Section 3, dealing with the election of delegates, subparagraph (a) Apportionment.

Your Reference Committee recommends Section 3, paragraph (a) Apportionment be changed to read: "Each component society shall be entitled to one (1) delegate for each fifty (50) members or major portion thereof, to be elected at its annual meeting by a majority ballot of the members present; but, each component society shall be entitled to at least three (3) delegates."

Your Reference Committee recommends that the minimum delegation from any county be left to three and not changed to two, as proposed.

Your Reference Committee further recommends that the present paragraph (9b) of Section 5 read as follows: "(b) Reapportionment. In the event of subdivision of any of the existing counties of New Jersey and the creation of an additional component society, the delegates from the old and the new component societies shall be apportioned on the basis above provided, and that the wording 'and the quota of the original component society of that district shall be correspondingly diminished' be deleted from the section."

DR. HORNBERGER: You have heard the report of your Reference Committee. What is your pleasure?

(After motion for its adoption, duly seconded.)

DR. HORNBERGER: It can't be adopted. This is an amendment to the constitution. The proper motion would be to receive it, lay it

over for one year, which is in accordance with the constitution.

(After motion that it be received and take the usual course, duly seconded.)

DR. SCHAAF: Mr. Chairman, Ladies and Gentlemen, Members of the House of Delegates: The original proposal to cut down the representation in the House of Delegates from its representation of 1 in 50 delegates to a minimum of two came from the Board of Trustees.

I would like to point out, in the larger counties in this reapportionment we are sacrificing seven-tenths of our present representation whereas the smaller counties are sacrificing one-third.

To me from Essex County, it seems inequitable and I, therefore, move that this recommendation be amended to state "No county society in the State shall have less than 2 delegates".

DR. SNEDECOR: Mr. Chairman, may I speak on the motion?

DR. HORNBERGER: It has not been seconded as yet.

(The motion was then seconded.)

DR. HORNBERGER: It it has been properly moved and seconded that each county society shall be represented by not less than two delegates. Now, Dr. Snedecor.

DR. SNEDECOR: Mr. President and fellow members: It wasn't altogether clear to me as the resolution was presented as to what exact meaning it had, and I think much more should be understood about such a resolution before any favorable action could possibly be taken.

Automatically, of course, it cannot be acted upon at this session and will go over for another year, but more attention should be paid to its contents.

It means that this House of Delegates will be reduced to less than one-third the present size. I am deeply opposed to this. It will be a knife in the side of good attendance at our annual meeting.

I wish every one of you would take back the intent and meaning of this resolution to your county society, so that when another year comes and a vote is taken you will know what is the wise procedure.

DR. NEWCOMB: Mr. Chairman and Members of the House of Delegates: I think the change made by the committee is a good one. In the smaller counties with two delegates you will have one a member of the Nominating Committee and one alternate. It won't reduce some of the smaller counties, very much. It will reduce our own county one and some of the other counties two. It will reduce larger counties in the same proportion. Three delegates for any of the smaller counties would be much better for the benefit of the counties than two and I hope that the amendment, as reported by the committee, will stand.

DR. STOKES: Mr. Chairman, could some member of the Board of Trustees explain their reasons for suggesting this change in our By-Laws? I don't know whether we all know why it should be cut down in number.

DR. JOHNSEN: For many years, the problem has been to get better attendance at the House of Delegates. New Jersey has a larger House of Delegates than any other state in the union. New York State with 22,000 members has a House of Delegates composed of 280 members.

At the meeting of the American Medical Association, where they have a delegate count of 175, attendance at each session of the House is nearly 100 per cent. For the work of the House to be conducted in a democratic, continuous way, our Committee felt that attendance would be much improved if there were fewer delegates.

The county societies have experienced great difficulty in getting the number of delegates allotted to them to come to meetings. In the past years, attendance of the House of Delegates has been very poor. So our Committee, in its study, felt that one way of improving the work of the House was to cut down the number of delegates. Thus those delegates who are assigned the duty of attending the House would make it their business to be here at all the sessions.

There is so far no other reasons advanced excepting the recommendation of the Committee to improve the work of the House and further improve the democratic processes.

Another objection came up when, at the last session of this House, a very vital matter came up, such as the Medical-Surgical Plan. It was rushed through "Aye" without any great consideration given to the great changes that were made in the Plan. Dr. Lewis at that time remonstrated against the House perfunctorily voting "aye" on something which had not been carefully considered. Our only purpose has been to improve attendance of this House of Delegates and to try to make it a responsibility of every delegate to be present at each of the meetings. In that way we would have a more democratic procedure in which all of the counties were equally represented; and, so far as I know that has been the only purpose of this amendment.

DR. ALLMAN: I happened to be Chairman

of the Committee to which Dr. Johnsen referred, and everything he says is absolutely correct. The proposal we are now discussing was only one of the means we had of increasing attendance at our sessions. Until this year, the last session held on Thursday has been terrible. The delegates should have been ashamed of themselves.

The other method which we thought of was changing the schedule of the delegates' meetings, which we have done this year. You will note, you met yesterday and you are meeting twice today and this is the final meeting of the House of Delegates. As you look about this room I think you will agree something has brought about a radical change because in former years at the last session (which was Thursday) we had a corporal's guard of fifteen to thirty. I think the proponents of this change will admit we, maybe, have accomplished our purpose.

There are definite disadvantages, of course, to limiting the number of representatives we have in the House of Delegates. And if you attend, I think you are entitled to as much attendance as you want to have. As Dr. Johnsen has pointed out, if you cut down to 1 in 50, it will certainly work a hardship.

Dr. Johnsen speaks of the fact we want to do it in a democratic way. The more representation you have the more democratic it will be.

Dr. Snedecor hit the nail on the head when he said you want to give it more consideration. I think we have overcome it by changing the days of the meetings and I don't think you need change the proportion of the House of Delegates.

I am not speaking for or against the amendment. Maybe a jump from 15 to 50 is a little too radical and if you are going to change at all I would rather see you make it one in 25 instead of one in 50. If you think one in 15 isn't going to work, let's split the difference, so to speak, and make it 1 in 25. I think that that wouldn't work a hardship on the larger counties and it would make for a nice House of Delegates.

I have no objection to a great big House of Delegates and I don't see why New York State objects to one. If only 6 or 8 or 10 of you come in at the last meeting, that is one thing; but I think we have corrected that by changing the day of the meeting of the House of Delegates and I don't think this resolution is now necessary. If it is, I would rather see it 1 in 25 instead of 1 in 50. (Applause).

DR. SCHAAF: I move that action on this resolution be tabled and referred to the Trustees for further consideration.

DR. HORNBERGER: Dr. Schaaf has moved that action on this resolution be referred back to the Board of Trustees for further consideration.

It has been properly moved and seconded. Any remarks?

DR. KRAKER: I would like to amend that motion of Dr. Schaaf to read that the matter be referred back to the county societies for study, and not to the Board of Trustees. The counties need it.

I, therefore, move an amendment to Dr. Schaaf's motion that it be referred back to the several county societies for study before the next meeting.

DR. SCHAAF: The amendment is accepted.

DR. HORNBERGER: Dr. Kraker has moved, Dr. Schaaf accepting, an amendment, which shall read instead of being referred to the Board of Trustees it shall be referred back to the county societies.

We shall now vote on the amendment. All in favor of the amendment will give their consent by saying aye. Motion carried. So ordered.

DR. TABER: The Reference Committee considered a communication from the Passaic County Medical Society concerning Honorary Membership in the State Society and requesting consideration of amendment to the Constitution and By-Laws whereby members with forty years of active membership in the Society be given life membership. It was the opinion of the Committee, in view of Section 7, Article IV of the Constitution providing for Emeritus Membership, that the recommendation of the Passaic County Medical Society of March 31st, 1949, be not favorably considered.

Your Reference Committee finally recommends that the above changes be publicized by the Medical Society to all county societies in order that the suggested changes may have full consideration by the component societies prior to the next Annual Meeting.

Your Reference Committee recommends that their report disapproving the recommendation of the Passaic County Medical Society with regard to Honorary Membership in the State Society be adopted; that it not be favorably considered.

DR. HORNBERGER: You have heard the report of this section of the Reference Committee. What is your pleasure?

It has been moved and seconded that the report of the committee with reference to this last section be approved. Any remarks? All

those in favor give their consent by saying aye. Contrary?

DR. TABER: The Chairman of the Reference Committee now moves the adoption of the report of the Committee as a whole, as amended.

DR. HORNBERGER: It has been properly moved and seconded that the report of the Reference Committee on Constitution and By-Laws, as amended, be adopted as a whole. Are there any remarks? All those in favor say aye. Contrary? So ordered. Thank you Dr. Taber.

We shall then proceed with the report of Reference Committee "A", Dr. Martin Collier, Chairman. Dr. Lewis C. Fritts will read the report.

DR. FRITTS: Dr. Collier, Chairman of this Committee was called home and he asked me to read the report.

Reference Committee "A" met last night at 8:30 in Room 108 and the following members attended: Dr. Martin Collier, Chairman, Dr. Sloan G. Stewart, Dr. Harold H. Freedman, Dr. Carmine L. Pecora and Dr. Lewis C. Fritts. The meeting was opened by the chairman.

The President's report was read and discussed. We wish to comment favorably on the report as a whole and compliment Dr. J. Howard Hornberger on the excellent manner in which he conducted the office of President during the past year. We would like to emphasize his request for solidarity in backing of our national leaders.

In his report he has spoken of the excellent work done by Dr. Frederic J. Quigley on the Subcommittee on Legislation, and by Dr. William E. Bray on the Subcommittee on Public Relations. This committee would like to endorse these commendations.

The President commented on the progress of the Medical-Surgical Plan under the able administration of Dr. Norman Scott, and asked for full cooperation by members of The Medical Society of New Jersey to enhance its growth. Our committee supports this view.

With Dr. Hornberger we too regret the loss of Dr. Berthold Pollak and Dr. George Fithian, who have both been so active in our Society in past years.

We support his attitude of the expansion of public relations.

In view of the intensive educational program to be conducted this year we feel that the Public Health Week should be temporarily discontinuel.

DR. HORNBERGER: You have heard the first part of the report of Reference Committee "A". What is your pleasure?

It has been properly moved and seconded that this section of the report of Reference Committee "A" be adopted. Any remarks? All those in favor give their consent by saying aye. Contrary?

DR. FRITTS: The only comment the committee wishes to make on the report of the Board of Trustees concerns graduate education and specifically that part which recommends two-year rotating intern training program as a pre-requisite for licensure.

While we approve of this in principle we feel that it will create a further shortage of interns in the smaller non-teaching hospitals, and will also create a bad situation for interns who have to serve two years in a hospital where teaching facilities are inadequate.

DR. HORNBERGER: It has been moved and seconded that this portion of report of Reference Committee "A" be adopted. Are there any remarks? If not, all those in favor give their consent by saying aye. Contrary minded? So ordered.

DR. FRITTS: The report of the Secretary was approved without comment.

The report of the Judicial Council was studied and no action was taken.

The report of the Executive Officer describes his services to the Society. His work has been superior and we wholeheartedly congratulate him. In the conduct of his office he has been efficiently supported by Mrs. Madden and her staff and we feel that the Society owes all of them a great debt of gratitude.

I move you, sir, the adoption of this portion of the report and the report as a whole.

DR. HORNBERGER: It has been properly moved and seconded that the latter portion of the report, and the report as a whole, be adopted. Are there any comments? If not, all those in favor will give consent by saying aye. Contrary? So ordered. Thank you Dr. Fritts.

We shall now proceed to the report of Reference Committee "B", Dr. Joseph P. Donnelly, Chairman.

DR. DONNELLY: Members of the House of Delegates: Your Reference Committee considered the reports assigned to it by the House of Delegates at the first session, and offer the following recommendations for your consideration and action:

1. *Report of the Publication Committee*

   a. The printed report in the April JOURNAL be approved as published.

   b. The resolution and supplemental report on acceptance of liquor advertisements was withdrawn by the Publication Committee.

2. *Report of the Treasurer*

   The Treasurer's report be approved as pre-

sented and the Treasurer be complimented on the simplicity of reporting on the financial status of the State Society on the calendar and fiscal year basis.

3. *Report of the Finance and Budget Committee*

a. That the budget for 1949-50 be approved in the amount of $120,165.

b. That the per capita assessment for 1950 be $30.00, and that $5000 of this assessment be set aside in the Special Reserve Fund established by the House of Delegates last year.

Mr. President, I move the approval of the whole report and the supplementary report.

DR. HORNBERGER: It has been properly moved and seconded this report together with the supplementary report be approved as a whole. Are there any remarks? If not, all those in favor say aye.

Now, we call for the report of the Reference Committee on Resolutions and Memorials, Dr. Samuel A. Cosgrove.

DR. COSGROVE: Mr. President, officers and members of the House of Delegates: Your Reference Committee met at 8:30 p. m., April 26. Present were Dr. Samuel A. Cosgrove, Chairman, and Dr. D. Leo Haggerty. In the absence of the other three members of the committee, Dr. Aaron H. Horland of Essex County and Dr. Henry A. Davidson of Hunterdon County were named as committee members, these gentlemen being present.

From the Supplemental Report of the Board of Trustees was received the nomination of Mr. George E. Stringfellow for Honorary Membership. This nomination was unanimously approved.

A resolution concerning a bond issue for the Department of Institutions and Agencies providing for a referendum at the next general election of a bond issue of $25,000,000 for the purposes of expanding and improving the State's hospital facilities for care of the mentally ill and other wards of the State—this was unanimously approved.

A resolution with reference to voluntary and compulsory health insurance approving the 12 Point national health program of the American Medical Association and expressing emphatic opposition to any legislation providing governmentally operated or controlled compulsory health insurance— this resolution was unanimously approved.

A resolution concerning the medical care of the welfare clients and medically indigent patients—this resolution was unanimously approved with the addition of a paragraph lettered "E" to follow in sequence paragraph "D" of the original resolution, to wit:

E. That all county societies be asked to submit reports of the survey herein provided for to the Executive Officer of The Medical Society of New Jersey on or before October 1, 1949, for the purpose of state-wide consolidation of this information. No state appropriation is available for aid to the counties in making the above provided for survey.

A resolution on the recruitment of physicians educated in part or in whole at government expense—this resolution was unanimously approved.

A resolution concerning the medical personnel requirements of the armed forces, reiterating recommendations heretofore passed by the Board of Trustees of The Medical Society of New Jersey, introduced at the Interim Session of the House of Delegates of the A.M.A., and instructing our Delegates to reintroduce it, if necessary, at the forthcoming meeting of the House of Delegates of the A.M.A. in June of this year—this resolution was unanimously approved.

A resolution for the improvement of local public health services—this was unanimously approved, with the exception of the deletion of words "public" and "introduce" from the resolution and the substitution, for the word "introduce" of the words "endeavor to have introduced"; that resolution then reading as follows:

RESOLVED, That The Medical Society of New Jersey, in collaboration with the Commissioner of Health of New Jersey, endeavor to have introduced in the Legislature and press for passage of, a bill which will assure the prompt attainment of the required changes in the present structure of the public health system in this State.

This was unanimously approved as amended.

A list of nominations for Emeritus Membership in The Medical Society of New Jersey—this list was unanimously approved.

A resolution introduced by the Essex County Medical Society providing for the establishment of a General Practice Section in The Medical Society of New Jersey—this was unanimously approved.

A resolution providing for the establishment of General Practice Staffs in hospitals was amended by the insertion of the word "general" preceding the word "hospitals" in the resolution, so that the resolution now reads:

BE IT RESOLVED, That The Medical Society of New Jersey recommend as a matter of policy that all general hospitals receiving monies from public and welfare funds in New Jersey establish General Practice Staffs.

This was unanimously approved as amended.

A resolution on the medical care of veterans

and operation of VA hospitals—after extensive discussion and testimony by interested delegates of the Society, your Reference Committee recommends that this resolution be referred back to the Board of Trustees for further consideration as to the wisdom of adopting such a resolution at this time. It is further recommended that before our delegates be instructed to introduce this resolution to the House of Delegates of the A.M.A., the matter be canvassed with the Coordinating Committee of the A.M.A. This recommendation was by unanimous action of the Reference Committee.

I move the adoption of the Reference Committee report.

DR. HORNBERGER: Dr. Cosgrove, I feel perhaps, in the first place, I ought to compliment you. It was a very fine report. I think perhaps it would be a great deal clearer in the minds of the members of the House of Delegates if you were to read each one of these and move for the adoption of them one at a time in order to avoid confusion.

DR. COSGROVE: Mr. President, there was so little that was controversial in regard to most of these resolutions, and your Reference Committee very unqualifiedly approved them, that I think there might be a compromise between my original motion and your suggestion to discuss any particular resolution herein that this report has reference to.

DR. HORNBERGER: Ladies and Gentlemen of the House: You have heard Dr. Cosgrove's very excellent report, for which the Chairman thanks him. Are there any portions of the report that you would like to have discussed or to have moved individually?

It has been properly moved and seconded that this report be adopted as a whole. Are there any questions or remarks? If not, all those in favor give their consent by saying aye. Contrary minded? So ordered. Thank you, Dr. Cosgrove. (Applause)

The adoption of this report brings to me a most unusual and certainly a very pleasant opportunity and that is to welcome into The Medical Society of New Jersey as an honorary member Mr. George Stringfellow who, as you all know, has had charge of the Cancer Society's activities in the State of New Jersey for many years and who, in that capacity, has done a grand job. At this time I want to introduce to you the man who, from the standpoint of the Society, has done yeoman work in this cancer proposition, and he, better than anyone I know of, can outline for us what Mr. Stringfellow has done.

It is, therefore, with a great deal of pleasure that I present Dr. William O. Wuester who is the Chairman of the Cancer Committee of The Medical Society of New Jersey.

DR. WUESTER: I have been invited to present this citation because of my close association with, and intimate knowledge of, Mr. George E. Stringfellow in his direction of the New Jersey Division of the American Cancer Society. Mr. Stringfellow is an accomplished and distinguished industrialist. He is Vice-President and Division Manager of Thomas A. Edison, Inc., with which company he has been identified since 1918. He is Director of Mine Safety Appliances Company, Pittsburgh, Pennsylvania. He is a member of the Board of Directors of the American Mining Congress; former chairman of the Manufacturers Division of the same organization and Member of their State Board of Governors. He is a member of the American Iron and Steel Institute and American Institute of Mining and Metallurgical Engineers. He is a Representative to the United Nations Organization for Kiwanis International and Past President of the Kiwanis Club of New York City.

He was awarded the certificate of service by the Rotary Club of Orange, New Jersey in 1943 in recognition of unusual achievement in inspiring leadership, and the promotion of understanding between the forces of labor and management, was cited as the outstanding citizen of the Oranges and Maplewood by the Chamber of Commerce of those communities in 1942, and was cited by the Brotherhood Committee of the Essex County Conference of Christians and Jews as the Protestant who did most to bring about an understanding between the three religious sects. He is a Past President of the Chamber of Commerce and Civics of the Oranges and Maplewood.

He is a member of the Board of Directors and a member of the Executive Committee of the New Jersey Taxpayers Association. He is a member of the Board of Managers of the New Jersey Home for Disabled Soldiers at Menlo Park, New Jersey. He is a member of the Edison Pioneers and the Edison Old Timers. He is a Chairman of the Board of Trustees of Ithaca College, Ithaca, New York. He received an honorary degree of Doctor of Fine Arts from Ithaca College in June, 1945; and Doctor of Laws from both Upsala College, and College of South Jersey in 1947. He served two years as Potentate of Salaam Temple, Newark. He is Vice-President of the Board of Trustees of Central Brick Presbyterian Church in East Orange, New Jersey. He is a member of the Board of Directors and Vice-Chairman of the Executive Committee of the American Cancer Society and President of the New Jersey Division of the American Cancer Society.

He is extremely active in fraternal, civic and welfare organizations. No worthwhile project for the public welfare will fail to enlist his interest. In 1938, with the work of Governor Moore's Committee, which studied Cancer facilities in New Jer-

sey, there was devised the idea of multiple, well organized Cancer Clinics in the General Hospitals in strategic locations throughout the state of New Jersey. Although these recommendations were made to the Medical Society, funds for such a program were not available until three years ago. At that time, through the efforts of the American Cancer Society, New Jersey Division, of which Mr. Stringfellow was president, the realization and fruition of these plans was made possible. Under his leadership, the New Jersey Division has raised over two million dollars in the last three years and is now in the process of raising the 1949 quota of $700,000. Mr. Stringfellow was an active leader in formulating the present by-laws under which the Cancer Society operates, and the business policies laid down by him have been used by many other state divisions. Mr. Stringfellow has rendered a signal service to The Medical Society of New Jersey. He realized the need for an organization that was effective in Cancer Control at the inception of his presidency of the Cancer Society. He was quick to see the relative position of laymen and medical men in the Cancer Control Program. It was he who formulated the agreement with the Medical Society that has been strictly adhered to since that time, an arrangement which is unique in New Jersey. He enunciated the principle that: *"It is the responsibility of the layman to raise the money and to administer the funds in accordance with sound business practices. It is the responsibility of the doctors to advise how, where, and for what medical facilities, programs and services, the money shall be spent."* It was on the basis of this statement that the closest bond of cooperation has existed between the medical profession through its Advisory Committee on Cancer Control and the American Cancer Society, New Jersey Division. By bringing about this close liaison, he has made a magnificent contribution to the welfare of the people of New Jersey. Through his efforts he has made it possible to grant almost one-half million dollars of donated funds toward the improvement of available diagnostic and therapeutic facilities in over forty-five Cancer Clinics in the State of New Jersey. Truly, this a great accomplishment.

Mr. Stringfellow is retiring as president of the New Jersey Division of the American Cancer Society in August of this year, but will continue as an active member of the Executive Board to which he will contribute his wealth of wisdom and experience. In view of his impending retirement as president, it is particularly appropriate at this time that he be given recognition for his work in the field of cancer. The Medical Society of New Jersey honors itself by conferring on him honorary membership in this Society. (Applause)

DR. HORNBERGER: Thank you, Dr. Wuester for that very fine presentation. And now, Mr. Stringfellow, on behalf of The Medical Society of New Jersey we have been privileged in welcoming you to the Honorary Membership and present to you this citation which I shall now read to you:

"The Medical Society of New Jersey". To all whom it may concern. Greetings. This citation is presented to GEORGE EDWARD STRINGFELLOW, for his appreciation of the ideals and purposes of the medical profession and for his signal contribution to the welfare of the people of New Jersey by his competent guidance of the Cancer Control Program of The New Jersey Division of The American Cancer Society, and to him is granted Honorary Membership in The Medical Society of New Jersey with all the rights and privileges appertaining thereto.

In testimony whereof, the signature of the proper officials and the seal of the Society are affixed at Atlantic City, New Jersey, this twenty-seventh day of April in the year of our Lord, one thousand, nine hundred forty-nine. J. Howard Hornberger, President; Earl LeRoy Wood, Secretary, and the seal of The Medical Society of New Jersey.

MR. STRINGFELLOW: Mr. President, Dr. Wuester, Distinguished Guests and Friends: I am both humbled and honored by this recognition. I wish I could feel that I was wholly worthy of it, but you have set, in extending to me this honor, a standard which I shall strive most diligently to attain.

I have been a member of many associations for a great many years and I have received a number of honors, but I have never received an honor which I value more and view as much as this one.

The preventing of death from cancer or any other disease of its type is developing to a crusade in this republic, as it should, and I never met a more public spirited group of men than those who form or compose your Society.

It is too bad that your contributions to mankind are not better understood. Few men realize that one-third of your production is given away. I know of no industry in America that gives away 5 per cent of its production much less one-third.

In working with you in the Cancer Society, it has been a thrill to me and an uplift because I have found a group of men who are wholly unselfish, who are combining their efforts to prevent suffering and death from one of the worst diseases ever known to mankind.

I was glad to hear you say a moment ago that you approved a bond issue of $25,000,000 for the agencies and institutions of this state. That is a very worthy cause and as a member of The Board of Managers of the Home for Disabled Soldiers of New Jersey, I am in a position to recognize the need and I would say that that issue would have passed last year had the voters been permitted to vote on that particular bond issue. We of the Taxpayer's Association did everything we could to segregate those three issues and let the people vote on them individually, but the politicians wouldn't permit it. This year, I am glad to say,

that those three issues if there are three, will be segregated and it will be the privilege of the Taxpayer's Association to put forth a concentrated effort to see that the voters approve of that particular issue.

There are a lot of men in America today who feel that socialized medicine wouldn't affect them. I contend that socialized medicine would be a malignant growth on our body politic because socialized medicine would enter the blood stream of our way of life and you can no more have socialized medicine without socialized industry than you can have slavery and freedom at one and the same time.

It was that great Emancipator who made the wise observation that slavery and freedom are incompatible and I say to you that socialized medicine and the capitalistic system; socialized medicine and our free enterprise system, the thing that made us a free people, are likewise incompatible.

Thank you for having me here. (Applause)

DR. HORNBERGER: Thank you, Mr. Stringfellow. It has been a great pleasure to have heard those very excellent and timely remarks. Lest we forget, Mr. Stringfellow was not alone. I think sometimes we are entirely too prone to heap praises on an individual, certainly where praise is due, but let's ask Mrs. Stringfellow to come up for a moment, please, because certainly she shares some of the responsibilities of her husband.

(Dr. Hornberger presented bouquet of flowers to Mrs. Stringfellow.)

DR. SCHAAF: Mr. Chairman, I would like to request the unanimous consent of The House of Delegates to present two non-controversial resolutions.

DR. HORNBERGER: It has been properly moved and seconded that Dr. Schaaf be given the unanimous consent of this house to present these two resolutions. All those in favor say aye. Contrary? Granted.

DR. SCHAAF: Thank you, Gentlemen. One of the oldest and most distinguished members of The Medical Society of New Jersey is retiring from active participation on the Board of Trustees and Essex County wishes to offer the following resolution:

Whereas, Edward M. Zeh Hawkes, M.D., has been an active and helpful member of The Medical Society of New Jersey for nearly sixty years, and

Whereas, He is an honored Past President of the Society and for many years faithfully served as Trustee, and

Whereas, Through the years of service he has been an exemplar of integrity and has given much of his time and strength to the welfare of the Society; therefore be it

Resolved, That The Medical Society of New Jersey hereby places on record its appreciation of the wise leadership and the long, distinguished and faithful service rendered to the Society by Doctor Hawkes; and be it further

Resolved, That the text of this resolution be spread on the minutes of the House of Delegates and that a proper copy be presented to Doctor Hawkes. (Applause)

Also the following resolution. This comes from The Board of Trustees: "Be it Resolved that the address of Mr. Dilman M. K. Smith, Vice-President of Opinion Research Corp., Princeton, N. J., be given the widest possible publicity, that copies of his address be sent to every county society, to each member of the Committee of 21 and further that copies also be sent to each State Medical Society and to the members of the Committee of Fifty-three of the A.M.A." (Applause)

I move, sir, the adoption of this resolution.

DR. HORNBERGER: You have heard the motion. Is there a second?

It has been properly moved and seconded that that the resolution be adopted. Are there any remarks? All those in favor give their consent by saying aye. Contrary? Passed!

DR. ROBIE: I would like to move you that the unanimous consent be given by this body to present a resolution emanating from the Orange Memorial Hosital.

DR. HORNBERGER: What is your pleasure, ladies and gentlemen?

It has been properly moved and seconded that unanimous consent be given to Dr. Robie to present this resolution. Are there any remarks? All those in favor give their consent by saying aye. Contrary? So ordered.

DR. ROBIE: This resolution to The House of Delegates of The Medical Society of New Jersey is from the staff of the Orange Memorial Hospital:

Whereas, it has been the policy of The Medical Society of New Jersey to evade politely or, in truth, to refuse to accept requests to supply speakers to debate the current threat of socialized medicine.

And whereas, Mr. Carl Holderman, president of the New Jersey CIO, has published in the newspapers (Newark News, April 19, 1949) a challenge for the medical profession and more specifically for this Society, to debate the question before any organization in the state, asserting in his challenge, "We have only facts to bring to the public, facts about the high cost of inadequate medical care and we intend to bring them to the public. . . . When the people know the facts, we are certain they will press Congress to the prompt enactment of the national health insurance bill".

And whereas, the Orange Memorial Hospital Committee For The Study of Political Medicine has been meeting weekly since December, devoting intensive study to this question and supplying speakers to many civic organizations

And whereas, during their deliberations this Com-

mittee has become convinced that to ignore this challenge will mean that only the viewpoints of the proponents of compulsory health insurance will reach the ears of the individual members of organized labor throughout this state,

Therefore we, the members of the Committee For The Study of Political Medicine of Orange Memorial Hospital, hereby petition and urge that the House of Delegates of The Medical Society of New Jersey take some action in reversal of the policy of refusal to debate the subject, which has been followed up to now. The principle of debate of any burning question which concerns the common good is one of the basic principles of our democracy and we, as doctors, should be guided in our actions by the democratic principles which we are now so ardently fighting for.

I move the adoption of this resolution. It puts it right up to this body. We would like to take some action as to policy. I move the reversal of the policy that has been followed up to now.

DR. BOWERS: I move that this matter be referred to The Board of Trustees without comment. They meet tomorrow morning.

DR. KRAKER: I move that this matter be referred to the county societies.

DR. HORNBERGER: We have a motion on the floor and it is seconded. We have a motion on the floor that this matter be referred to the Board of Trustees for their action at their meeting tomorrow morning. It has been moved and seconded. Any comments?

DR. NORTON: There is no defined policy by The Medical Society of New Jersey *not* to debate that issue. If an opinion is out there that we have adopted such a policy, it is an erroneous opinion. There is no such stipulated policy any place that I know of.

I, as the Chairman of the Coordinating Committee of the State Society with the elected officers of the State Society which forms the remainder of the Coordinating Committee will formulate policy to meet this problem as we proceed. There is no need for this resolution because it is resolving to reverse something which is not there to reverse. (Applause)

DR. SNEDECOR: I move this resolution be tabled.

DR. BLACKBURNE: The motion is that the matter be referred to the Board of Trustees.

DR. HORNBERGER: The second motion, according to our parliamentarian takes precedence over the original motion. Therefore, it has been moved and seconded that this matter be tabled. Any discussion? All those in favor give their consent by saying aye. Contrary? The motion is passed.

DR. MULLIGAN: Mr. President and Members of The House of Delegates: Reference Committee "D" met last evening and considered the reports of the following committees: The Medical Education Committee, The Scientific Work Committee, The Medical Defense and Insurance Committee, The Advisory Committee to The Woman's Auxiliary, The State Board of Medical Examiners and The New Jersey Health Congress.

Your Reference Committee endorses all the reports considered and compliments those chairmen who submitted them. It is recommended that they, the reports of Reference Committee "D" be accepted as such.

DR. HORNBERGER: It has been moved and seconded that the Reference Committee "D" report as submitted be accepted. Are there any remarks? If not, all those in favor give their consent by saying aye. Contrary? It is so ordered. Thank you, Dr. Mulligan.

We shall now proceed with the report of Reference Committee "E", Dr. Merton L. Griswold, Jr., Chairman.

DR. GRISWOLD: Reference Committee "E" met at the appointed time with the following members present: Dr. Louis Schneider, Dr. Philip W. Baker, Dr. John S. Forbes and Dr. Merton L. Griswold, Jr., Chairman. The reports of the Welfare Committee, the subcommittees and advisory committees were considered, and the following actions were taken:

Welfare Committee—No report was received from the Welfare Committee.

Subcommittee on Medical Practice—Four specific recommendations were made by this committee and I would like to move that each of these four sections be approved separately:

1. That we again ask through our delegates to the American Medical Association that further consideration be given to doubling the fees for life insurance examinations.
2. That the superintendents and chiefs of the medical staffs of all general hospitals in the state be notified of our objection to the taxing of physicians under any guise to help meet the deficit of voluntary hospitals.
3. That the physicians in charge of both the obstetric and pediatric departments of the hospitals be notified of the neo-natal standards.
4. That general hospitals of New Jersey be urged to set up departments of general practice.

Mr. President, I would like to move the approval of these four endorsements.

DR. HORNBERGER: You have heard the report of Reference Committee and recommendations, what is your pleasure?

It has been properly moved and seconded that this report be adopted and submitted. Any questions? If not, all those in favor say aye. Contrary? So ordered.

DR. GRISWOLD: I will present the rest of

the reports of the committees and have them moved as a whole. The committee reports are numerous and a considerable amount of material has to be reviewed and we have boiled it down as much as possible.

Subcommittee on Legislation—The printed and supplementary reports were read and commended by the committee. We congratulate the legislative committee on the thoroughness of their work.

Subcommittee on Public Health—The printed and supplementary reports were read and it is the recommendation of the committee that The Medical Society of New Jersey express its interest in the commission enacted by the Legislature for the study of medical, surgical and economic problems and needs pertaining to care of long-term illness or chronic disease.

Subcommittee on Public Relations—The committee considered the printed and supplementary reports. We commend this exhaustive report and specifically endorse the basic program dealing with compulsory health insurance.

Advisory Committee on Cancer Control — The printed report was read and the very real progress of this committee is recognized.

Advisory Committee on Cardiovascular Diseases —The printed report was reviewed and the committee wishes to commend the establishment of additional heart clinics and approves of the continuation of this committee's work.

Advisory Committee on Child Health—After reviewing the printed report, it was endorsed.

Advisory Committee on Crippled Children—The report as printed was read and the note was made that the committee was at work on several projects which were not ready for communication.

Advisory Committee on Maternal Welfare—The printed report was endorsed in toto, dealing with the efforts of the committee to reduce maternal mortality.

Advisory Committee on Mental Hygiene — The printed report was reviewed and the committee wishes to point out that in connection with the detention of sexual psychopaths, special detention wards should be established in the county. This particular paragraph is referred back to the committee for further study.

Advisory Committee on Rural Health — The printed report was reviewed and unanimously endorsed.

Advisory Committee on Workmen's Compensation —The printed and supplementary reports of the committee were read. We considered the recommendation of Dr. William K. Harryman, Chairman of the Workmen's Compensation Committee (in the supplementary report), regarding the present tendency to interject allegations of traumatic neurosis in claims for workmen's compensation, where such claims are not in fact justified. We recommend that the President of The Medical Society of New Jersey appoint a special committee to study the problem in coordination with the now existing Workmen's Compensation Committee.

Advisory Committee on School Health — The printed report was reviewed and commended.

Advisory Committee on Tropical Diseases — No comment.

Advisory Committee on Tuberculosis—We endorsed the printed report with the exception of the fifth recommendation which reads as follows:

> We believe that general hospitals should provide facilities to qualified chest physicians for the admission of private patients who refuse to go to a sanatorium for initial pneumothoraces or pneumolyses.

We recommend that this paragraph be referred back to the committee for further study.

Advisory Committee on Anesthesiology — The printed report was read and endorsed.

Advisory Committee on Contract Practice — The report calls for no specific recommendations.

Advisory Committee on Hospital Relationships— The following two recommendations were endorsed by this committee:

> 1. The Joint Committee for the Improvement of the Care of the Patient which will have been formed this year, to begin its activity, operation and functioning during the year to follow.
> 2. Representatives of this Joint Committee by The Medical Society of New Jersey as well as the New Jersey State Nurses' Association and the New Jersey Hospital Association should he carefully selected, almost "hand picked", in consideration of the objectives, purposes and program of the committee.

Advisory Committee on Industrial Health and Hygiene — The committee recommends that The Medical Society of New Jersey approve the "standards of professional qualifications, performance and facilities" for the general practitioner in industry as set forth in this report.

Advisory Committee on Medical Care of the Indigent—The printed report was reviewed and endorsed.

Advisory Committee on Laboratory Medicine— We recommend that the third project of this report in relation to pre-marital physical examinations be referred to the Subcommittee on Medical Practice for further consideration.

Advisory Committee on Nursing and Nursing Education—The printed report was read and approved.

Advisory Committee on Pharmaceutical Problems—The committee recommends that the report be filed.

Advisory Committee on Physical Medicine—We recommend that the report be filed.

Advisory Committee on Radiology—The committee feels that report is not entirely complete and recommends that it be referred back to the Radiology Committee for further study.

No reports were received by the Reference Committee from the following advisory committees: Adult Disease Control, Conservation of Vision and Hearing, Nutrition, Venereal Disease Control.

Mr. President, I move that these recommendations be accepted by the House of Delegates.

DR. HORNBERGER: It has been properly moved and seconded that the recommendations of this Reference Committee be accepted by this House of Delegates. Are there any re-

marks? All those in favor give their consent by saying aye. Contrary? So ordered. Thank you Dr. Griswold.

Next is the report of the Reference Committee on Miscellaneous Business, Dr. R. Winfield Betts.

DR. BETTS: Mr. President and members of the House of Delegates.

Your Reference Committee met at 8:30 p. m., April 26, 1949, and we approved the reports of the Scientific Program Committee and the Annual Meeting Committee as submitted and published in The JOURNAL. We commend the activities of the committees and the excellence of their reports. The innovation of the *Daily Bulletin* is to be commended.

The report of the Committee on Scientific Exhibits was reviewed and approved as submitted. The excellence of the work by the committee is to be commended, especially since so many of the exhibits originate within our own state.

The Reference Committee approved with great pleasure the place and date for the 1950 Annual Meeting—Haddon Hall, Atlantic City, May 22 to 25, 1950.

Mr. President, I move the acceptance of the report as a whole.

DR. HORNBERGER: It has been properly moved and seconded that the Reference Committee Report on Miscellaneous Business be accepted as submitted. Are there any questions? If not, all in those in favor give their consent by saying aye. Contrary? So ordered. Thank you, Dr. Betts.

We have just received a telegram relative to the appointment of a committee to study the need for a medical school in New Jersey.

This house initiated that activity a year ago, and your president recommended to the Governor for appointment from our Society: Dr. Irvin E. Deibert of Camden, Dr. Royal Schaaf of Newark, Dr. James F. Norton of Jersey City and Dr. L. Samuel Sica of Trenton.

Rutgers University submitted the names of Robert A. Cook, M.D., New York City; Harry L. Darby, New York City; William S. Borden, of Trenton, and Thurlow C. Nelson, Ph.D. of New Brunswick.

The telegram received from the Governor's office yesterday reads as follows:

"Subject to their acceptance, Governor Driscoll plans to appoint the following to the committee to study the need for a medical college: Dr. H. M. Wortman, Montclair; Mrs. Theodore Edison, West Orange; Dr. Henry B. Decker, Camden; Dr. H. Wesley Jack, Wenonah; Milton C. Lightner, Elizabeth; Mrs. Gerald R. Brophy, Westfield; Walter W. Reid, Allenhurst; John Bosshard, Commissioner of Education."

I am certain that in those appointments we shall be very well and very adequately represented. I think this House of Delegates as of a year ago deserves a great deal of credit, under the leadership of Dr. Schaaf for having initiated this program.

We now come to the report of Reference Committee "C", Dr. Joseph E. Mott, Chairman.

DR. MOTT: Mr. President and officers, members of the House of Delegates: The Committee met to consider the seven point program recommended by the Hudson County delegation concerning changes in the contracts and in the management of the Hospitalization and Medical-Surgical Plans; the report of the Medical Service Administration; the report of the Medical-Surgical Plan; the report of the Emergency Medical Services Committee; the report of the Veterans Liaison Committee and the report of the Military Service Committee.

The Committee's recommendation is as follows: First, regarding Hudson County Delegation recommendations:

Point number one—they recommended "that the people of New Jersey should be made aware of the existence and availability of these two plans through the medium of organized advertising campaigns, the expenses of which campaigns should be defrayed by the Plans themselves and also by The Medical Society of New Jersey."

This Committee recommends that the people of New Jersey should be made aware of the existence and availability of these two plans and that The Medical Society of New Jersey make appropriations for that purpose.

Point number two—Hudson County recommends that the contracts should be set up for the accommodation of individual subscribers.

This Committee recommends that contracts should be set up for the enrollment of individual subscribers.

Point number three—they recommended that subscribers who are now enrolled under group contracts should, upon loss or discontinuance of employment, have the privilege of continuing their insurance as individuals, without any loss of benefits.

This Committee recommends that subscribers who are now enrolled under group contracts should, upon loss or discontinuance of employment, have the privilege of continuing their insurance as individuals.

Point number four—the Hudson County Delegation recommends that individual subscribers to either of the Plans should enjoy the same benefits as do those enrolled under a group contract, even if such equalization of benefits should entail an increase in the rate of subscription for an individual contract.

This Committee recommends that individual sub-

scribers to either of the Plans should enjoy the same benefits as do those enrolled under a group contract, except for maternity benefits and pre-existing conditions.

Point number five—the Hudson County Delegation recommends that every doctor should be qualified and empowered to explain and complete contract negotiations with his patients.

After much discussion, this Committee *rejected* this proposal and recommends that every doctor should have available in his office, with the assistance of the Medical-Surgical Plan, literature and material to explain the Medical-Surgical Plan.

Point number six—the Hudson County Delegation recommends that the Medical-Surgical Plan create a new contract to insure incomes of less than $3600 per annum, at the lowest possible rate.

This Committee voted to refer this point to the Board of Trustees of the Medical-Surgical Plan for further study without recommendation.

Point number seven—the Hudson County Delegation recommends that adjusted fees for services to families of incomes above $3600 *per annum* be computed uniformly upon the basis of ten per cent increase of the basic fee for every $500 of income in excess of $3500 and up to $7500.

Your Committee voted to refer this point to the Board of Trustees of the Medical-Surgical Plan without recommendation.

Several members of the Hudson County Delegation were present at this meeting and were in accord with the actions of this Committee on all seven points at this time. This Committee further recommends that this Society periodically publish in the JOURNAL the stated meeting of the Board of Trustees of the Medical-Surgical Plan of New Jersey and invite any member of the Society to attend.

Mr. President, may I ask for approval of the report up to that point?

DR. HORNBERGER: You have heard the Chairman's request for approval of the report up to this point. Do I hear a second to that motion?

(The motion was seconded.)

DR. DONNELLY: Mr. President, I would like to speak on the motion. This is the most important business that will be transacted at this convention.

You have all heard Mr. Smith's speech this morning and one of the things definitely brought out was that if we are going to fight compulsory health insurance we must do it with a positive and not with a negative plan. (Applause)

As secretary of the Hudson County Medical Society, I have been deputized by the delegates again to present to this convention an outline of necessary changes in the present contracts of the Blue Cross Hospital Plan and the Medical-Surgical Plan.

Last night at the meeting of Reference Committee "C" an orchidectomy was performed on most of our recommendations by Mr. Sorg and Dr. Scott. Our original proposals were definitely emasculated. It is our duty to our patients, who comprise all the citizens of New Jersey, to give them the best prepayment medical care and hospitalization plan we can devise.

If this convention adjourns without protecting our patients with a better prepayment plan, then, I think, all the Delegates to this convention could be charged with a grievous neglect of duty.

If we are to oppose Mr. Ewing's compulsory sickness insurance our most important ammunition is an adequate prepayment plan of our own; not something just to talk about but something which will really protect your patient.

If you do not set up adequate voluntary insurance for the citizens, then when you go forth to speak as members of the speakers bureaus and make impassioned speeches about socialization, communism and the welfare state, you can dust off Nicholai Lenin, and use his quotation: "Socialized Medicine is the arch of the Socialized State", and when you get all finished and await your applause, do not be surprised if, instead of applause, you get a Bronx cheer and the shout: "Nuts to you, Doc.; we want medical protection for our families".

We must give them good voluntary insurance, we must sell them millions of contracts in the next year. The California Medical Society sold 4½ million contracts in 18 months when faced with Governor Warren's compulsory sickness tax threat. We can and must do it here.

We can no longer talk about a Medical-Surgical Plan that, after 7 years, enrolls only 277,000 people. We must transfuse this plan with several million new members or else be prepared to do an autopsy on it.

What I say is also equally true of Blue Cross Hospitalization. Mr. Sorg and Dr. Scott tell us that we can't have new contracts because of the State Banking Commission, or that they haven't asked the Attorney-General about some legal point.

If the laws have to be changed, let's get going while the Legislature is still in session and I am sure that Governor Driscoll and the Republican and Democratic members of the Legislature will all get in the race to see who can get the credit for giving the people of New Jersey a better voluntary insurance contract. (Applause).

After all, gentlemen, this is a gubernatorial

election year and that type of legislation should be assured of quick passage. However, we must hurry.

I should like again to discuss the program outlined by the Hudson County Society. First, that the people of New Jersey should be made aware of the existence and availability of these two plans through the medium of organized advertising campaigns, the expenses of which campaigns should be defrayed by the Plans themselves and also by The Medical Society of New Jersey.

2. Contracts should be set up for the enrollment of individual subscribers.

3. Subscribers who are now enrolled under group contracts should, upon loss or discontinuance of employment, have the privilege of continuing their insurance as individuals, without any loss of benefits.

4. Individual subscribers to either of the Plans should enjoy the same benefits as do those enrolled under a group contract, even if such equalization of benefits should entail an increase in the rate of subscription for an individual contract.

5. Every doctor should be qualified and empowered to explain and complete contract negotiations with his patients.

The individual contracts now sold by Blue Cross and Medical-Surgical Plan do not include maternity benefits and other benefits in group contracts.

We talk of individual freedom but still we penalize a man for having a family or at least refuse to give him insurance against the costs.

We expect and have received support from Protestant, Jewish and Catholic organizations in our fight again compulsory sickness insurance. Yet we must tell these religious groups that we penalize a man who wishes to raise a family.

Gentlemen, unless you include maternity benefits and all other benefits in all of your individual contracts, then these contracts are definitely contrary to the principles and ethical concepts of all religious groups.

The time for decision has arrived. We should never depend on paid employees of The Medical Society to outline the basic thinking of the Society. You are the governing body of The Medical Society of New Jersey and must act today. Thank you, very much. (Applause).

DR. LANCE: Mr. President, I move that this House of Delegates go into Executive Session.

(Dr. Lance's motion was seconded and passed.)

DR. HORNBERGER: It will then be necessary for all you people who are not delegates to this House to retire in order that we may continue this discussion in executive session.

(Whereupon the House of Delegates went into Executive Session.)

DR. HORNBERGER: Dr. Mott, will you please continue with your Report of Reference Committee "C"?

DR. MOTT: Your Committee approved the Report of The Medical Service Administration as published in the April JOURNAL.

Your Committee approved the supplementary Report of the Medical-Surgical Plan as distributed to the House of Delegates.

Your Committee approved the Report of the Emergency Medical Service Committee as published in the April JOURNAL.

Your Committee approved the reports of the Veterans Liaison Committee and the Military Service Committee as published in the April JOURNAL.

DR. HORNBERGER: It has been properly moved and seconded the remainder of the Report of Reference Committee "C" be approved. Are there any remarks?

All those in favor will give their consent by saying aye (Chorus of ayes); contrary, no (No reply). So ordered.

That, ladies and gentlemen, completes the reports of the reference committees. Dr. Bray will now present a resolution.

DR. BRAY: BE IT RESOLVED that the House of Delegates of The Medical Society of New Jersey express its appreciation to Governor Alfred E. Driscoll for his telegram announcing the appointment of eight public members who together with four members representing Rutgers University and four members representing The Medical Society of New Jersey to comprise a commission of 16 members to study the need for and the means of founding and maintaining a medical school in New Jersey, and that The Medical Society of New Jersey reiterate to the Governor its profound interest in this problem.

DR. HORNBERGER: It has been properly moved and seconded that the resolution presented by Dr. Bray shall be adopted. Any question?

If not, all those in favor give their consent by saying aye (Chorus of ayes); contrary, no (No reply). So ordered. There being no unfinished business on the agenda, we come now to a very delightful portion of this House of Delegates meeting. Delightful for me to step down and take life easy. Perhaps delightful for you that you are going to have an officer come in who can really lead you.

DR. LEWIS: I move you that this House of Delegates consent to an expression of sympathy and wishes for a good recovery for our

Secretary who was taken ill the other night, Dr. Earl LeRoy Wood.

DR. HORNBERGER: It has been properly moved and seconded that this House send a resolution of sympathy and wishes for a speedy recovery to our very fine and genial Secretary, Dr. Wood. All those in favor of that say aye (Chorus of ayes); no (No reply). So ordered.

Before stepping down I want to thank each of the individual members of this House as well as the House as a whole; my Parliamentarian, the Secretary *Pro Tem*, the Executive Officer; the Officers of our Society and our Convention Manager for your extreme courtesy and patience.

It has been my privilege to have been associated with the efficient family of The Medical Society of New Jersey for a period of 17 years. During that time I have never seen a House of Delegates in which the attendance was any better, the interest any higher or whose patience was any greater than this particular House. For that I am truly grateful.

It is now my great pleasure to introduce to you Dr. Vincent Butler of Jersey City who will present to you your next President of The Medical Society of New Jersey.

DR. VINCENT BUTLER: Dr. Hornberger, Members of the House of Delegates of The Medical Society of New Jersey:

Before I proceed to the delightful assignment which I have received from you to present our next President I would like to express my appreciation to you for all the cooperation that I have gotten from you in my work as the Chairman of the Welfare Committee. From my close observation of your work as President I wish here to express a tribute to you, to your zeal, your energy and your effectiveness as President of The Medical Society during this past year. (Applause)

I had a father who died not too long ago at a rather old age. And he had a way of life and philosophy of life which I think was somewhat typical of many of the people of his generation. And I am afraid that we are getting away from their ideas. It would be nice to go back to some of their ideas. These people, when some good fortune came to some friend of theirs it made them extremely happy. When some honor came to a friend of theirs they personally felt honored.

I think that The Medical Society of New Jersey should be happy at the good fortune that we have in having selected Dr. Norton as our President. I personally feel honored because he is a friend of mine.

I wish also to express to you the sentiments of the Hudson County Medical Society which likewise feels honored to think that you would have selected one of their outstanding members to lead you for the coming year.

Now he takes his place with the other illustrious members who have been Presidents of this Society over a period of 183 years. But with all of these honors go likewise a grave responsibility.

We are probably at this particular moment faced with some of the gravest problems that organized medicine has ever had to contend with. And I want to assure you as a life-long friend of your incoming President and one who probably knows him better than anyone in the profession, that we have not made any mistake in selecting Dr. Norton.

The prime object of the Medical Society, as we all know, is the advancement of scientific medicine and the attempt to provide good medical care for all of the people of New Jersey. And because of my close association with him over a number of years I can testify to the fact that he well and capably measures up fully to the responsibilities of such a position.

We have been particularly good friends. We started out in high school and prep school together; went through college together and through medical school; interned. And our paths have never been very far apart. Sometimes they have been a little too close together. We have been through many affairs, sometimes in fair weather and sometimes in stormy weather. But I can assure you that there is no one in the whole of the practice of medicine whose devotions to the high ideals of medicine come any higher than those of our incoming President.

My own opinion is that he in every way has all of the characteristics of a true Christian and a gentleman. He has the natural talent for the dynamic leadership which our Society will need in the immediate future. And to me he typifies the highest type of doctor that there is in this noble profession of medicine.

It is with a great deal of pleasure and feeling of sincere pride that I present to you James Norton as your President. (Applause)

PRESIDENT JAMES NORTON: Dr. Hornberger, Members of the House of Delegates:

I think you have been talked to enough this afternoon and I am going to say precious little from now on in. At least little today.

Vincent, I feel very deeply the personal tribute you pay me. You know much about me that you didn't tell them, and for that I am very, very grateful. You said some nice things.

Oh, the Lord only knows you could have said some truthful things that I suppose wouldn't be the time or place and probably wouldn't sound too well.

But I am not quite the fellow that Vince Butler makes me out to be. He didn't tell when we started back in 1905 in prep school together, and that goes back a long way.

I can tell you Members of this Society that no one has ever assumed the leadership of this Society with a deeper and more profound sense of appreciation than I have now. I feel myself singularly honored in being asked to preside over the destinies of this Society for the coming year.

I feel a total inadequacy, however, for the tasks and duties that lie ahead. But I am a bit fortified and sustained when I believe and hope that I can have the support of a united Society during what I think might well be a very, very important year. From your support I will gain strength. And I need strength and I need support because frankly and honestly by myself alone I can't do the job. I know myself better than anybody in the Society.

It is with a good bit of feeling that I assume this responsibility and I am a little bit over-awed by it. This would have been all right if it had come five years ago or ten years ago or ten years from now. But as I see the thing, next year and the year after and perhaps the year after will be the most important years in the affairs of medicine in this country. They may well be the most important years in the affairs of our whole social economic philosophical, religious and political structure as we know America.

Perhaps within the next few years or within the next year we may well be called upon to decide the question as to whether this democracy which we know as America shall survive. We have a very important place to claim. And I assure you most sincerely that I bespeak the feeling of my confreres from Hudson County that they look upon the era that is dawning pretty much the same as I do. And that is why they are as much concerned as they indicated today about the whole problem of medical care.

We have to distinguish in a big thing as I see it that lies ahead in a general objective about which we all agree. We agree definitely that there is some need for a cohesive action concerning the national health program. We agree with the President of the United States that it is an important problem. And we most heartily agree with our parent organization, the American Medical Association, that there should be a well-delineated, sharply defined, well-articulated, forceful national health program for these United States.

As I see the national health program, it means the need and importance of protecting the health and physical well-being of the people of this country by the prevention of and providing adequate care in periods of sickness and disability. There is no one who doesn't say "Amen" to that. If there is anybody in this organization who doesn't feel that that is our problem and that is everybody's problem, then he is not as acutely attuned to the proposition as I wish he would be.

We come, however, to a parting of the ways when we discuss methods proposed to meet it. How best are we to implement these national health program ideas. The government has offered us a controlled practice of medicine called rather euphemistically "National Health Insurance". It is not health insurance. It is sickness insurance. It is not insurance. It is taxation. It is not good. It is not necessary. It will, if implemented on a national scale soon, and very soon, lead to a totalitarian state in the practice of medicine.

I most heartily subscribe to many of the statements made by Mr. Smith this morning and by Dr. Lahey yesterday in his impromptu remarks from this platform. As I see this program, it is a knock down and drag out fight with no quarter given and no quarter asked. We must with a very, very aggressive attitude go out and make ourselves understood. We are not as has been said many times from this platform during this meeting just "against" compulsory health insurance. We are against any type of ideologic regimentation which is going to reduce a segment of our people to what amounts to serfdom.

We protest most vigorously the destruction of all the things that we know as Americanism and the practice of Americanism. And we should just as vigorously protest if they attempted to do it to labor or industry or to religion or to any other segment of our national economy.

We are not against compulsory health insurance just because we are actuated by economic and selfish interests. We are above economic and selfish interests. We have to make it understood that we are. We are in favor of solving the need of a national health program by the widening spread and more rapid utilization of voluntary pre-payment health insurance. It is an affirmative campaign.

We are *for* something and we are for something good and something noble and something grand and something workable. But we can't be for it as effectively as we should be unless first we understand the problem of the people. And the people have a right, a very definite right to a very wide distribution, a more wide-spread distribution of medical care. We know their problem. We are sympathetic to their needs. We want most definitely to help them. But we must have people understand us.

We don't have to apologize for what we stand for because we are not asking anything. Most certainly I am not in the coming year going to ask for one single solitary moment of consideration because I am a doctor of medicine. And I am not going to ask for any consideration from any group to protect the interest of medicine as medicine. I am not going to ask for anything at all that will even remotely be construed or can even be remotely interpreted as being actuated by a selfish or economic reason.

We want most definitely to help in the solution

of a problem, a vexing problem and a very important problem. We have the answer. We have it if only we can learn to use it. If only we can exploit it to its maximum. We must use it. We must effect a more wide-spread dissemination of all of the voluntary plans.

Much has been said against the voluntary plans by those who are actuated by political reasons, who want to reduce first, medicine to a state of serfdom. And they have said that they can't work. And they say they are inflexible. And they said they can't be made to operate under any system. And they say they can't possibly offer the amount of care that the people need at a price they should be expected or could be expected to pay. And in their propaganda they have reduced the contributions of all the voluntary plans to a minor role.

Gentlemen of the House, I assure you again that it was in order to give you a better platform to stand on, a firmer backdrop to talk before that you were asked to give some consideration to the Medical-Surgical program which was presented by the delegates from Hudson County today.

Our problem succinctly is this: first, and I don't believe it is right now a very grave problem. I might be wrong. I am not an astute political prognosticator. But our first problem is to defeat anything that looks like compulsory health insurance in the 81st Congress. From what I see of it and from what I read in the papers I don't believe you will get any compulsory health insurance in the 81st Congress. But, if we don't—if I may just drop the vernacular, the chips are down for you and for me and for every medical society in this country. It is down for all of them because this is the year. We have to show. We are positively and undeniably obliged to prove the voluntary plans can work. The voluntary plans *will* work. Their contribution to this problem is not a minor or subordinate factor but a major factor in the solution of the whole problem. And unless and until we get that so well ingrained with an apostolic zeal, we will fail most miserably in the job ahead.

And I don't want anyone to come along in this fight unless he takes it up and takes it to his heart and throws himself into this thing perhaps at the expense of a goodly bit of physical discomfort. But that I am most willing to pay, because I would like—I have a son, and I would like to hand to him the same heritage that was handed to me by an immigrant father who came from Ireland, who made it possible for me to attain what by all standards is a good education, which permitted me to come into one of the noblest and grandest professions that it is possible for a man to come to and which has permitted me most unworthily, I assure you, to be elevated to the leadership of a very important segment of that profession. But I want to look him in the eye some day and tell him that what was handed to me I tried as best I could to preserve. And that I will do, so help me.

I dedicate and consecrate myself wholly and solely to the job at hand. I dedicate and consecrate all the physical, financial and moral assets of this Society to preserve, again I repeat perhaps for the tenth time, a selfish and economic interest in medicine most assuredly no, but to preserve this way of life, this thing called America where we are able in a rather easy sort of a fashion freely to associate ourselves with those with whom we wish to associate, to go where we wish, to do whatever we wish within the fabric of decent social behavior. And that I most solemnly swear I will do.

I recognize my inadequacies. I ask you not to take Dr. Butler's estimate of me too seriously. I really am not that good. But I think in this thing we have a right to ask everyone, labor, industry, the farm group, the parent-teacher associations, service clubs, every one to join with us in a campaign for the preservation of this way of life of this democracy. I think we might well make this campaign slogan "Shall this Democracy survive?" because as I see it our whole social and economic structure is at the cross roads, and if medicine is regimented, if medicine is controlled I think much more will follow.

Bid them come and join us because we are on solid ground. We are on solid ground that is supported by truth. It is supported by the facts in the case. It is supported by a natural sympathy that people have for their own personal problems. It is supported by sound ideologic policies and principles. It is a ground that will not shake or will not quiver or will not perilously or tremulously move when sound and strong blows are struck in its defense. And there is room for all of us to join in the fight. And I hope that when the thing is done and an account of my stewardship is over that I will have served as well as so many of my noble predecessors.

I pray God most humbly that I will discharge this job to the best of my ability and to the very best that I am able to give it so that one year hence we might come back triumphantly, all of us, with the knowledge and the sense that we have contributed something in a campaign of transcendent importance, and that we have written in bold and bright and brilliant letters one of the most important chapters in the modern history of America.

I pray your support. I need it. And with God's help we will prevail.

(Members arose and applauded.)

Past-President Hornberger: Thank you very much, Jim. Certainly with that philosophy there is no argument whatsoever. I personally pledge you my wholehearted support and I am certain that I speak for this entire House of Delegates. And now I have the privilege of presenting Mrs. Norton to the House of Delegates. (Applause)

I also have the privilege of presenting to you our new Second Vice-President. (Applause)

(Thereupon at 5:30 o'clock the meeting of the House of Delegates adjourned *sine die.)*

GENERAL SESSION

Wednesday Morning, April 27, 1949

DR. HORNBERGER: The meeting will please be in order. This session is devoted to the national health program. We regret that due to the recent illness of our own Senator H. Alexander Smith, who was scheduled to speak to us, he is unable to be present.

We are fortunate, however, in having in place of Senator Smith, Mr. Dilman M. K. Smith, vice-president of the Opinion Research corporation of Princeton.

Since its founding in 1939, Mr. Smith has been vice-president of the Opinion Research Corporation. He has directed the public opinion research for the public relations sections of many national and state organizations. Also many professional and trade associations. He has been research consultant to a number of such organizations. In addition, his work in industrial relations research has given him an opportunity to observe closely the operation of the leading companies' sponsored medical and health programs.

Mr. Smith is a native of Iowa. He has done graduate work at Drake University and graduate work in Sociology at Columbia.

It is with a great deal of pleasure that I introduce to you Mr. Dilman M. K. Smith. (Applause)

MR. SMITH: Mr. President and ladies and gentlemen: It is a pleasure to be here and to have a part in this State meeting.

I am just a little embarrassed by this name of Smith and the address of the President at this moment because people came here expecting to see and hear Senator Smith, who is a good fellow townsman of mine. It so happens we are not related. Maybe I look a little like him but I have never suspected it but since I have come in the room this morning I have been called "Senator" "Doctor" "Professor" and also have been called "Hey, you".

I am reminded or I recall very much a thing that happened in Oregon a few years ago. A very young lady by the name of Bracken married a young engineer by the name of Mike Smith and after a year of trying to get used to this name of Smith—her first name was Ruth and that made it even worse, of course—she wrote this poem which was published later in Post Script in the Saturday Evening Post and her poem reads "Smiths of thee I sing".

No E upon the other end,
No DE at the beginning,
I give you Mr. Smith, friend,
More sinned against than sinning.

Gather, neighbors! Hark ye back
To Adam . . . to John . . . to the Village Black!

Hail to kin and the valiant kith
Of Mr. and Mrs. America SMITH,
Who've struggled along since the Plymouth landing
With a patience that passeth all understanding.

Now, ONDERDONKS can toddle off to deep, sweet slumbers;
SMITHS stay awake while they answer wrong numbers.
FLANIGANS eat oranges; CARRINGTONS eat cake;
SMITHS eat the groceries delivered by mistake.
And quiet through the fury of the mid-March din come
SMITHS, paying busily on Someone Else's Income.
Their rations are muddled, their letters are crossed,
Bills arrive, but the checks get lost.
For where is the postal assistant who can
Accurately pigeonhole the Great SMITH Clan?

And I've never known a SMITH who was hauled in for arson,
Or hurgled small cigar stores, or massacred a parson.
I never knew a solitary member of the tribe
Who'd pinch a little baby or take a little bribe.
And here is my hypothesis, if anybody cares,
WE'RE TOO BLAMED OCCUPIED UNTANGLING OUR AFFAIRS!

—P. Bracken Smith

The subject which your program committee assigned to me was public opinion in the medical profession.

Actually, there are two broad subjects which I am going to discuss today. The first concerns public opinion about the medical profession, while the second concerns what the medical profession can do about public opinion.

My organization has specialized in studies of the mass mind for many years. We have made particular study of public thinking toward the medical profession and the issues involved in government medicine. Since 1943, our researches in this field have been digging deeply and widely. We have made several opinion studies among the general public, among workers covered by voluntary plans, of whole communities where special forms of prepayment medical care plans were in operation, and we have even had the temerity to invade busy doctors' offices all over the country to ask for their ideas.

The medical profession, of course, is not the only proposed victim of government control. Many of our basic and fundamental industries are engaged in the same struggle. Electric power faces the same problem—so periodically does the railroad industry—the banks are a prime target for those who want a government-owned economy—the steel industry has been threatened. My organization has had long and varied experience exploring public thinking for all of these industries.

So when I start to talk to you about your specific problems, I am constantly thinking about the parallels with the other candidates for nationalization; and am extremely aware of the great community of interest you should have with these other people. The problem of state control is, in fact, the greatest issue that confronts men all over the world.

The central issue of our times is how far the state shall go in organizing and directing our social and economic lives.

You can call a belief in this sort of thing "statism", or "new-dealism", or "socialism" or "communism"—or whatever you like. But whatever the name, it is simply the question of how far we shall go in letting a central government solve our problems.

It is true that as a nation we have moved rather strongly in the direction of asking the state to solve some of our problems.

For example, we have put the government in the lending business to take the place of private venture-seekers in furnishing capital for new businesses.

The government, in recent years, has injected itself strongly in the settling of labor disputes and laying down of rules of the game by which management and labor should deal with each other.

Over the years we have seen more of the planned-economy idea developed.

In many, many fields of endeavor, such as farming, we see gigantic subsidies being offered under good symbols, but in reality many of them promoted for political reasons.

The government has been given or usurped the role of instigator and decision-maker in developing such things as foremen's unions.

In certain areas of the country tremendous economic and social enterprises such as TVA have taken form.

Over and above the political gain to be achieved by many of these innovations, an atmosphere or climate which makes for more continuous government intervention has developed.

The social and economic climate in which we now live is pretty far to the Left and is tremendously influenced and accelerated by such things as:

The colossal debt
The dependence of veterans on government
The organization of labor into hierarchies where a few men control
The willingness of some businessmen to avoid competition
The government in the banking business
Soft money policies
Government reaching for more control in the name of stabilizing employment

All of these things are a part of the social and economic climate in which we now find ourselves.

In almost every walk of life we, therefore, find certain controls of government actions which affect all of us—whether we be businessmen, farmers, laborers or professional people.

Now in America, controls of this sort cannot get by without the consent of the people.

Therefore, as the problem of socialized medicine becomes more critical, we need constantly to examine the public attitudes toward this very controversial problem.

Coming to the way people in general think of you, my first observation is that the public holds the medical profession in high esteem. Large majorities of the national public testify to such ideas as these:

They recognize that Americans are more healthy now than they were 20 years ago.
They are loyal to their own doctor.
They know he has a personal interest in them and they believe this makes him a better doctor.
They fear that under government medicine you as doctors would lose some of this interest in them.
They, on the average, have never been dissatisfied with a doctor's treatment or handling of a case.
They, on the average, have never felt that a doctor has over-charged them.
They realize that you accept charity patients and that you collect only part of your bills.
They recognize that most doctors are overworked today.
They approve of the American Medical Association.

But, the public's high opinion of you as medical men does not carry over directly into their evaluations of government medicine. Very few people say that they would let their own doctor's views on government medicine affect their own thinking. And prepayment medical care plans sponsored by groups of doctors receive somewhat less public favor than do plans sponsored by insurance companies or the government plan. In other words, the public seems to value you more in your professional role than in an administrative capacity. People will accept your professional advice, but they will look with a wary eye at your economic or political suggestions.

What is the reason for this distrust? Up to date, you as a group, and I suspect somewhat as individuals, have for the most part stated your case largely in terms of your own self-interest. You have opposed only the means or method without declaring yourselves dedicated to the same good ends the public desires. More of this later.

Now, what can you do about this? What moral can you draw from it? We see several important implications. First, emphasis on the insurance company type plans has been well placed. You will be well advised to continue encouraging the adoption of these insurance company plans, since the doctor group plans have somewhat less appeal to the public.

Second, the case for the continuation of private practice should be carried to the people in terms that will interest them—not merely in terms of what they think they should do. A cardinal rule of advertising is also a cardinal rule of your own public relations—that is, always put the argument in terms of what it will do for the other fellow, not what it will do for you.

Third, although you are the ones who have the greatest interest in the cause of continuing the private practice of medicine, you yourselves may not always be the best ones to carry the message to the public. People may interpret your actions as tooting your own horns. They may find it hard to credit you with anything more than a selfish interest.

From our very first study in this field, we learned that an overwhelming majority of the public saw a need for doing something to ease the payment of doctor and hospital bills. This is a very important point that should never be lost sight of—the public wants an easier way to pay for doctor and hospital bills.

People are so much impressed with the need for achieving this end that they do not care much about how it is accomplished. That is, the public would approve of either compulsory plans or voluntary plans, so long as they were assured that costs of future illnesses would be met. As a matter of fact,

the layman has not thought very much about the merits and demerits of the various methods of providing prepayment medical care. He does not discriminate too strongly as between the possible kinds of prepayment plans. The tendency is to approve any feasible plan. Choices between government and non-government plans split about evenly—or to be a little more precise the public gives the edge to insurance company plans over government medicine, which in turn is rated above the doctor-sponsored plans.

If the private practice advocates succeed in obtaining a high proportion of coverage and sufficiently comprehensive types of insurance, then the government medical proponents will find it hard to overtake you.

Your national public relations program is very sound when it emphasizes that the campaign should be an affirmative one for voluntary health insurance rather than simply a negative campaign against compulsory health insurance. It is essential that you get widespread and comprehensive coverage as soon as possible—that you be the ones who get their firstest with the mostest.

We are aware that a great deal has already been accomplished. Somewhere in the neighborhood of 50 million persons have hospitalization insurance and about half of these have some form of insurance for medical care expenses. This is a remarkable achievement considering that practically all of the growth of these voluntary plans has taken place in the short space of a few years.

Our surveys have shown that where people have satisfactory private medical insurance systems, their desire for government medicine is reduced to a minimum. So this is a progressive move which can have a great effect in holding off further growth of public support for government medicine. But 50 million people covered by hospitalization insurance is not enough. You have to keep this progressive trend moving ahead.

The public thinks as you do on several aspects of government medicine:

They wouldn't want the government to set your fees.
They wouldn't want to have the government pay all the expenses of medical students and the cost of medical schools.
They believe that a government medical plan would limit their choice of doctors, and they wouldn't like that.
They would think it a bad thing if doctors were required to practice under a government plan.
They would be opposed to restrictions that would tell you where to practice, what specialty to practice, or how many patients you could have.

Yet some of the people whose attitudes appear to agree with your own thinking on these features I have just mentioned nevertheless do favor government medicine. This means either that they do not accept that these effects are inevitable or that they think they see other advantages.

As for the inevitable effects of government medicine, you will want to continue to explain these relationships in full. You can't assume that the layman will bridge the gap between cause and effect. For example, the very person who says that doctors are already overworked may also say that under government medicine more people would visit doctors more often and that both of these additional loads would be a good thing for the public. It's pretty hard for us to reconcile these two points of view, but many people would see no inconsistency in these attitudes until it is carefully pointed out to them. In fact, the idea of more frequent visits is one of the big drawing cards for government medicine.

The layman would think that you were crying "Wolf!" if you were to insist upon certain of your expectations from a government medical program. For example—

You may think that less progress would be made in medical research under a program of government medicine. The public leans slightly toward expecting more progress under government auspices.
You have reason to believe that the quality of medical care would deteriorate under a government program. The public does not anticipate this eventuality.
You think that doctors might become bogged down in red tape if the government took over. As many people deny this possibility as expect it.
You think a government plan would cost the people too much.
They deny it. Again, this is one of the big advantages they think they see in government medicine.

So you have a tremendous job of interpretation ahead of you if you expect to defeat the proponents of government medicine on the basis of logical grounds. Some of the evils that you see the public does not look on as evils. Other of the evils that you see, the public would also consider evils, but it discounts the likelihood of their occurrence. Therefore, no matter how clear the implications of government medicine are to you, you cannot afford to be dogmatic about them.

Now, what are the advantages that people continue to think they see in government medicine that they don't see in other programs? I have already mentioned the expectation of lower cost. This is a difficult argument to combat, not because it has any truth, but because the government can always set the direct price at any figure, and hide the rest of the cost in the tax budget. People are more concerned over the direct quotation than they are over some unknown amount hidden within theirs or somebody else's taxes.

The other distinctive advantage of government medicine that people see is in the eventual inclusion of everyone in the program. You may be surprised to know how many do-gooders or altruists there are in our own population. About three persons in every eight think that it would be good for the people if they were forced to join a government plan. They say things like "that would be a way to see that those who really need the protection actually get it," and "It's the people who wouldn't join unless they had to that need such a plan, the ones who never have the money for such bills."

Many of these do-gooders already have their own medical costs adequately provided for, but they would be willing to subject themselves to government medicine, if necessary, to reach the people they want to help.

The most conclusive argument to use with such do-gooders is the present widespread coverage of adequate prepayment plans. Once they are convinced that the "other fellow" is provided for, then they will have no reason to foist a compulsory plan upon him. So here again you have a strong indica-

tion of the need for an affirmative campaign to bring more people under the benefits of existing plans.

Here's a principle that I would like to impress as strongly upon you as it is possible.

As life becomes more and more complex, we all respond to certain symbols which are a substitute for a reasoned approach to any one of life's daily and hourly problems. When we walk into a grocery store to buy a loaf of bread or a can of pears, we accept a symbol in the form of a trademark which eliminates the necessity of our worrying about the quality of the bread, or the taste or excellence of the can of pears.

When we walk into a clothing store we accept the symbol of Hart, Schaffner and Marx, and we don't need to worry about the thread count or whether the seams will hold together, or the quality of the material.

In a like manner, the Cross becomes a symbol, and we—most of us, I am sure—bypass a great many of the theologic controversies that might otherwise involve us by simply accepting a symbol.

Now, in this whole field of human relationships, certain symbols have come into being and have very definite meaning and values to people.

Unfortunately, the pie-in-the-sky advocates have understood this matter of symbolism much better than the people who see the dreams and promises of the pie-in-the-skiers as hollow promises.

Recall for a moment such potent, moving symbols as Forgotten Man, Social Security, Ever-Normal Granary, Aid to Potentially Adequate Farms, National Health Insurance.

These symbols moved people emotionally by declaring for the good ends in life without paying much attention to the means of accomplishing those ends.

Let's look for a moment at the very real problem of using the right symbols and the right words to convey your meanings and to reveal your motives in informing the public about the trend of socialized medicine.

In talking about socialized medicine, call a spade a spade. Don't hesitate to name it what it is. You think of it as socialization, don't you? Then, call it socialization!

You have no need to fear that the American people want socialism—that socialism would be attractive to them. Only a tenth of the public think that socialism would be a good thing for the country, and this small minority is probably against the private practice of medicine anyway. To the great majority of people, socialism is anathema, so concentrate your attention on this majority and let them know it is socialism of your profession that is being talked about.

The trouble is that they may not recognize this now. They are not faced with a referendum on the issue of whether the United States shall go completely socialistic. The people don't recognize the early symptoms of the creeping paralysis of socialism. The nationalization of this profession, or that industry, or this one, they do not clearly recognize as steps toward complete socialization. They have to be told. So again, I say, call it socialized medicine.

Also, there is no question in your mind that we are talking about compulsion, is there? The compulsion of payment on the part of the public is clear. The compulsion of participation on the part of the doctor is practically as evident if not quite so direct. The contrast with the present voluntary arrangement is extreme. No doubt about it, socialized medicine would be compulsory.

The American citizen does not like to be ordered around, to be regimented, to be compelled to do anything. In time of war, yes, he will give up some of his individual prerogatives, but when the war is over he demands their return. So point out to him that the issue is voluntary versus compulsory medicine. This is one way of getting the subtle "You" element into the discussion—one way is recognizing the patient's viewpoint.

I read the other day that a government spokesman was urging that Social Security payments be referred to as "taxes" instead of "contributions". He said that it is easier to collect "taxes" than it is to collect "contributions". Apparently some people have been evading the payment of these "contributions" just because the term seems to lack the teeth that the term "taxes" has.

This government man is right: Social Security payments are taxes; they are not contributions. And you will be wise if you follow his good advice. Socialized medicine calls for taxes, both direct and hidden. It has been estimated that the full adoption of life-and-death social security would cost 12 billion dollars a year by 1955—that taxes for cradle-to-the-grave security would then take 11 cents out of every dollar of national income. That amount will not be raised by "voluntary contributions". It will come only from "compulsory taxes". So let's not slip into any soft-spoken euphemisms—let's talk about socialism, compulsion, and taxes—because these are the facts of any government medicine plan.

Think twice before you speak of "national health insurance". That is the government-medicine advocates' description. "Health insurance" sounds like Utopia. Who wouldn't like to be assured of good health? I'd almost go for that myself. But I happen to think that socialization of medicine should not claim to be "health insurance".

Don't think for a minute that I am just playing with words in this discussion. Quite the contrary, I am trying to say that the words you use are very serious business. Names, as symbols, do make a difference in people's evaluations of great and small issues. The proponents of government medicine recognize this. They make skillful use of propaganda technics and never miss a chance to use the words that are most favorable to their cause.

Let me illustrate. I have here a bulletin issued by—and get this name—the Committee for the Nation's Health. The title of the bulletin is "Questions Asked by Members of Congress about National Health Insurance". This bulletin gives all the answers, but in the most careful wording from the propagandist's standpoint. I am not going to take time to read it to you except for some excerpts

which illustrate the importance of using the best words for the purpose.

1. *What is the purpose of national health insurance?*

To enable the American people to pay for good medical and hospital care by requiring them to put a small percentage of their income into a national insurance fund which would be used to provide such services.

Notice "American people", "good medical and hospital care," "a small percentage of their income," "a national insurance fund". All of these words put the purpose in the best possible light.

2. *Who would be covered by national health insurance?*

More than 120 million persons, including employed and self-employed persons and their dependents, in all occupations: Industry, agriculture, commerce, the service trades, and the professions. Employees of non-profit institutions and of the Federal government would be included, along with old-age and survivors insurance beneficiaries, civil-service annuitants, and their dependents.

Needy persons (public assistance recipients) who had insufficient earnings to become insured through their own contributions and any other persons not already covered (e. g. employees of state and local governments) could be brought under coverage through payments of insurance contributions on their behalf by a public agency.

Here we have "120 million persons," and particularly "needy persons". That's the hooker for the do-gooders.

3. *What health service would be paid for?*

I won't read all these services to you. Suffice it to say that they sound very complete. Let me read the last paragraph, however.

Dental, home nursing and auxiliary services would be included to the extent that the personnel and facilities were available and funds permitted. These services would be increased as rapidly as possible. Children would be given a priority on dental care, particularly preventive work such as the application of fluorine.

Now, there is a nice touch! We get to a children's "priority" on "preventive work" such as "fluorine" for the dental part of the government plan, for which the funds are not yet adequate.

4. *How could these health services be financed?*

Mainly through contributory insurance. A national health insurance fund would be set up in the U. S. Treasury.

Notice the "contributory insurance" and a "National Health Insurance Fund" in the "U. S. Treasury" no less.

8. *How would health insurance be administered?*

Major administrative responsibility would be placed in the hands of the people in the localities where the services were rendered and received.

"Major responsibility . . . in the hands of (local) people. . ." What more could anyone ask for than that? Of course, the statement has to go on to speak of the Federal Board and the National Advisory Council, but it seems to make clear in every way possible that this national health insurance would be a local matter. The last sentence in this statement is also very reassuring.

All participating hospitals would be guaranteed against interference in their internal management.

10. *Is it "socialized" or "state" medicine?*

No. This program is social insurance.

This statement goes on to draw a fine distinction between "socialized or state medicine" and "social insurance". This makes abundantly clear to me that these propagandists are very anxious to avoid the label of "socialism".

11. *What would this program mean in terms of dollars?*

Somewhat more than is now spent for inadequate and poorly distributed medical and hospital services, and far less than the billions of dollars lost to this nation in potential production and wages as a result of sickness and disability.

Surely, we are willing to spend just "somewhat more" to practically eliminate all this sickness and disability. To go on—

The basic services would be paid for out of the health insurance fund—physicians, hospitals, expensive prescribed medicines and appliances—and would be financed by the 3 per cent payroll contributions amounting to about $4½ billion a year. This does not represent a new expenditure—it is about what is now spent for these very services. But under national health insurance the money would be spent so as to enable people to get more services, and it would be contributed in such a way as to be easily afforded by everyone.

In other words, and if these claims are true, this plan could be labelled the "cost nothing" plan.

12. *How would national health insurance affect the average annual incomes of doctors and others furnishing services under this program?*

Favorably. On the whole, doctors will be economically better off than they are now. They will no longer have any problem in collecting full payment on charges made for their services, and they will have assured, as well as better, incomes than they usually earn. Judging from experience elsewhere, general practitioners' incomes would be greatly increased. An increase in the use of prescribed medicines is inevitable, with resulting advantages to the pharmaceutical industry. And, since people would in general be more insurance minded, similar advantages would accrue to the insurance industry.

This seems to just about cover all the possibilities. Not only would the patients be better off, but so would the doctors, and so would the druggists, and so would the insurance salesmen! We might now call this the "help everybody, cost nobody" plan.

These people who advocate socialized medicine are willing to meet the objections head on. For example—

14. *Would this program affect the incentives of physicians to practice good medicine?*

If it did, it would affect incentive favorably rather than adversely.

The doctor's incentive to provide quality care would not be inhibited by the patients' inability to pay.

17. *Would national health insurance encourage malingering?*

No, because only a very few people like to be sick. The few exceptional cases would have to be handled by physicians just as they are now. Moreover, the experience of voluntary health insurance indicates that over-utilization of services on account of malingering is relatively slight.

And now let me read what I think is the most bare-faced argument of all.

16. *What about "bureaucracy" and administrative costs?*

We already have a large proportion of the administrative personnel needed for the collection of contributions, keeping records, etc. They are now employed in administering our existing Social Security system. Furthermore, only a small proportion of government employees needed would be federal, because the chief function of the federal government would be to collect the taxes and divide them among the states.

Here we have a bureaucratic movement that requires no additional personnel. The Hoover Commission should welcome such an efficient idea as this.

Now some of you may think that the propaganda I have been reading here is too thinly disguised to be effective. Not for a minute. Don't underrate the power of the propagandist. As for yourselves, don't try to stand too much on dignity or attempt to keep your side of the argument at too high a level. The layman with whom you are dealing on this complicated subject is the same person for whom you have to explain that pes valgoplanus means flat feet. You have to talk to him in terms he will understand whether describing his own ailments or the ailments of a government controlled society.

I spoke earlier of the importance of getting other people to tell your story. The national campaign, as so capably outlined by Whitaker and Baxter, its directors, details a plan to interest lay speakers as well as doctors in the campaign, to obtain endorsement of clubs and organizations, and to interest auxiliary persons such as doctors' wives in the campaign. To all of this I give my hearty endorsement, and I should like to add a few comments of my own.

Gentlemen, have you acquainted your own wives with this issue of government medicine? Have you told them what is at stake for you and your patients? Are they talking the matter over in their clubs? How many people could your wife reach in a week's time if she knew that you wanted her to speak out? The Ladies' Home Journal has been running a campaign around the theme "Never Underestimate the Power of a Woman". Here is a case where you can demonstrate the truth of this theme to your own advantage and this time without being victimized by it.

What about the nurses on the staffs of the hospitals where you serve? What side do they take on the socialized medicine issue? Or don't they take sides at all? I can imagine that the nurses have not been aroused over this issue—that they do not see how government regimentation would affect them. And yet they are your closest aides in conducting your work. They should be sympathetic to your cause and they have the greatest opportunity to convey your message to a vitally involved part of the popularity—namely the people who are your patients right today.

We have been recently telling industrial leaders of the great importance to them of the plant visit. For a long time companies have been inviting groups of people in for conducted tours of their plants. They have started at the beginning of the production line and have been carried through to the point where the finished widgets come out. Sometimes they have been served coffee and doughnuts and have met some of the officials and foremen.

These people have come away from the plant visit with some idea of the complicated machinery, the size of the plant, and a generally favorable impression, but they haven't learned anything except a little technology. They haven't learned a thing about the economics of industry.

In the last two years, we have worked out a new version of the plant visit where people do learn something of the economics of industry. The idea is the interpretive tour, where technology is only the starting point, the interest catcher. With his interest as a lever, the visitor is taught the social interpretation in terms of his own personal benefits. As part of the tour he is told how wealth is created and shared, how industry operates as a partnership of labor, capital, and the consumer, how industry's benefits flow out to the community. This new plant visit does more than amaze people with the size and power and capacity of machines, then. It tells them what made those machines possible and what the benefits are to them.

You, through your hospitals, can teach people the social interpretation of medicine through the almost continuous open houses you operate.

For example, in our little town of Princeton, New Jersey, and its immediate surrounding areas, we have about 23,000 people. Another 10,000 people live within an easy area and are nominally patrons of our local hospital. That means that there are about 7675 families that look to Princeton Hospital.

Our local hospital has 120 beds. These 120 beds, with a normal turnover, bring in one member of every third family every year. As a public relations opportunity this is an unparalleled situation.

In addition to this, many families are actually attending an "open house". The parents, friends and relatives drop in for a visit. In short, in the course of one single year, almost every family in the entire area is at some time or another directly or indirectly walking or being carried through the front doors of the hospital. While they are there, every sense is called into play. Seeing, hearing, smelling, feeling, as well as emotions, combine to condition people to being receptive to the impact of a public relations message if it is incorporated in the services you offer a community.

And, after all, the gains you as a profession make public relations-wise are going to be accomplished much more at the local level by personal contact than by any amount of paid advertising, printed literature, movies, or other public relations devices that you can make use of.

Now, when I mentioned nurses in hospitals a moment ago, I was struck with the fact that you have the perfect example of a plant visit every time a patient enters a hospital. Only, so far as I know, you aren't making any better use of it from the view of telling your story than industry was doing with its old-fashioned plant visits.

Let's say that you have a patient who is recuperating from an illnes or operation, who has time on his hands, who is impressed with modern hospital facilities, and who requires a great deal of attention. He is in a receptive mood for your message. Then you have the nurse, who usually talks as she ministers to him anyway. She might just as well put in a good word for the private practice of medicine now and then.

This would give the patient something to think about. He probably would continue to talk about his operation for years afterward just as he does now—but at the same time he would have a much better realization of the advantages of unregimented medicine. He might just as well learn a

little sociology this way along with his impressions of how clean the hospital is.

Now, let me ask about your receptionist. She is there in the front office where your magazines are read and where your literature is passed out. What does she tell your waiting patients about government medicine? Have you ever talked with her about it yourself for that matter? Does she know your opinions on this issue? What suggestions does she have of ways to disseminate this kind of information?

You have reason to know a number of dentists. Do you ever talk to them about these basic issues? Do they see the problems in the same light that you do? Can you get them to take an active part against socialization?

I have been asking you the questions about your wives, nurses, receptionists, and dentists because it happens that we haven't made surveys among these people on this subject. You certainly should look for the answers to these questions either individually or through approved research procedures. Incidentally, although I have talked more or less authoritatively here about what the general public thinks based on earlier studies, it would be a good idea soon to make another series of comprehensive surveys to find out where you stand today and what your progress is right up to the minute.

These people I have just been talking about are all in the same boat with you—wives, nurses, receptionists, dentists. They are people whom you really should be able to count upon as staunch allies. And their combined forces can do a great deal of good. The fact that they are closely identified with the medical profession, however, does make them somewhat suspect, just as people in the profession are, when talking about the benefits of voluntary plans and the evils of compulsory plans. They may be accused of helping to grind the same axe that you are accused of grinding, but not if you will put the right words into their mouths.

Well, where else should you look for support, you ask. The answer is fairly obvious even though it isn't easy. The outline of your national campaign recommends that you get lay speakers to help carry your message to the public. What lay speakers can you hope to find who will do this for you? Why, the president of your bank, the head of your electric light company, the leading local building contractor, telephone company officials, railroad executives.

Don't you agree that the voices of such people raised with righteous anger against compulsory socialized medicine and praising the achievements of the free medical profession would be more effective than the same statements coming from a leading physician? Certainly they would!

Most of these men are accomplished speakers, too. They spend a large part of their time on the rostrum.

What are they making speeches about? Well, this may strike you as a coincidence, but a large part of their speech-making is on the subject of the advantages of competitive enterprise and the dangers of socialism—always applied to their own individual industries, of course.

The fact is that each of these industries is facing the same threat—government control, government ownership, nationalization of the industry. For some, like the electric industry, the threat is more immediate than for the others. For some, like the railroads, the threat is periodic. In times of stress and strain the pressure for nationalization is heavy on them; at other times they are not so hard pressed.

Your first step in this direction should be to show these people that together you have a strong mutuality of interest. They may not realize that you are all fighting the same battle. In fact, right while some of them are combatting socialism of their own industry, they may be approving "national health insurance". You have to show them that it isn't their industry alone which is threatened but that it is the whole structure of all industry which is under attack.

If you are only successful in convincing them of your common need, that will be something because these are people of considerable stature and influence in the community. If beyond that you can get them to take to the platform in your behalf, you really will have made an important contribution to your profession. Of course, there is a strong reciprocal obligation implied on your part, which is just what I am driving at. The day when I read of an electric company's president's talking against nationalization of banks, and read elsewhere of a bank president's coming out against socialized medicine, while a doctor somewhere is discussing the case against further nationalization of the electric industry—on that day I will begin to feel that there is a real chance of escaping the creeping paralysis of socialism.

Of course, you may find it a little awkward at first to attempt this cooperative effort. I was holding forth on these ideas the other day to a friend of mine in the building industry. He said that his industry had been up against this problem for a long time, only in his case the government proponents called it "low-cost public housing". Then he asked me, "Where were the doctors back in the thirties when we were up against our big problems?" Another friend in the electric industry asked me much the same question. He said, "Okay, but what stand did the doctors take on the Tennessee Valley Authority, and how do they feel right now about the proposed Missouri Valley Authority, the Arkansas Valley Authority, and all the other authorities? Brother, we are right up against socialism in a big way, but do the doctors know it? Are they willing to help us?"

This same electric company executive told me that some electric companies were already making overtures to the doctors in their territories, trying to get them to see that their problems were mutual. He didn't know what the response had been.

I predict that you will find these other people willing to work with you if you will cooperate with them. I believe that as soon as all these people see that nationalization is trying to creep in on everyone from every vantage point, then we can

all take up our positions to stamp out this menace to our American way of life.

As a review, in terms of what you as a profession can do to stem the tide toward socialized medicine, let me once more point out three fundamentals which you must keep in mind, both as individuals and as a group—

First, a good part of the movement toward socialization of some of our industries and associations is the battle for leadership—and leadership, gentlemen, is judged by the motives imputed to it.

You, as a profession, will be judged in the long run by what people think your motives are.

Therefore, Step 1 is to establish good motives so that people understand that you are trying to do the right thing in the public interest.

Principle 2 is the problem we discussed at some length, namely, new and Herculean efforts should be made to understand the symbolism involved in our complex, day-to-day living. People cannot be moved in the mass by reasoning processes which, to you, might seem entirely plausible. Rather, they will follow the symbol and you must learn to speak of the opposition here in terms of "socialized medicine" rather than "national health insurance" and "compulsory" rather than "voluntary" health plans, and "taxes" rather than "contributions".

The third, and probably all important consideration is this—

People are ends-minded. Truly, they like to view the rosy dawn and are somewhat unable to assay the means for accomplishing a desirable end. It is surely the function of a group like this to point out the weaknesses in the means of socialized compulsory medicine for achieving a desirable end.

But, your appeals will not register unless people understand that you, too, are seeking the same desirable ends as they seek. Learn to tell your story so that the public will know that you, too, are seeking ways and means to accomplish this very desirable end.

Gentlemen, the American public does not want socialism. But no democratic nation goes from a free market system to socialism in one deliberate, considered step. The socialistic mentality creeps up very gradually on an uninformed public. Your function is to inform and to interpret your point of view in your daily contacts with patients, and their families, your aides and your fellow business and professional townsmen. You can, by earnestly telling the story with the use of the right symbols, block further acceptance of socialized compulsory medicine. (Applause)

President Hornberger: We are also very fortunate this morning in having as our next topic, Britain's Medical Experiment One Year Later. To discuss that topic for us we have Mr. William Alan Richardson, editor of *Medical Economics,* Rutherford, N. J.

Mr. Richardson has just returned from a six-weeks' visit to the United Kingdom where he studied in collaboration with British representatives of medical economics the socialized British medical care system.

His report to this group this morning will be the first report that he has given to any group since his return from Europe. For that I am sure we should be and are sincerely grateful. Next week he will present a similar report to the annual meeting of the Medical Society of the State of New York, and from there on he has numerous engagements to speak on this very important subject.

Mr. Richardson is a graduate of Harvard University. He lectures on medical economics at Long Island College of Medicine, New York, and he speaks a great deal before national, state and local medical organizations.

He has traveled extensively abroad and I am certain will bring to us this morning a message of great importance in our own medical economy. Mr. Richardson. (Applause)

Mr. William Alan Richardson: Mr. President, ladies and gentlemen: I have just had a very depressing experience, a month spent in England, Scotland and Wales. During these days this is something I would not recommend to anybody looking for a good time. Merely to mix with a hundred or more doctors and to talk with an equal number of people is about as unsatisfactory and depressing an experience as I can conceive.

A good many of the remarks that have been made about socialized medicine as it is practiced in the British Isles have been exaggerated. That is one of the reasons I went over there, to try to get the true story of what is going on, and I hope to be reasonably objective, if not fully favorable in what I say.

Without Marshall aid today, it is doubtful that the British people could afford the luxury of their new national health service. But at the moment they're not thinking about the cost. They're romping in a sea of free medicine, admiring themselves in their 10,000,000 new pairs of spectacles and comparing lists of the goodies; hearing aids, false teeth, corsets, wigs and brassieres they expect to get through their doctors at government expense.

It is probably exaggeration to say that among British working men and their families the new health service is almost as popular as Danny Kaye.

Doctors are by no means so unanimous in their acclaim. You will find some men who like the scheme. You will probably find more who don't. Those in the populous industrial areas who had large lists of patients under the old panel system and who have been able to carry those patients over into the new national health service are relatively well pleased. They are making more money. They are being worked to death. But they don't register too severe a complaint primarily because of the economic gain.

Those outside these heavily populated industrial sections have a different story to tell. In the less concentrated urban districts, in the many moderate

sized towns that dot the countryside, in the resorts and the rural areas there are complaints.

I happened to arrive in London the day before interim meeting (which is the equivalent to the meeting held in the winter of the House of Delegates of the A.M.A.). Most of the time there was spent in listening to the heated remarks of general practitioners in particular who were at the meeting to express the dissatisfaction of their constituents at home with various phases of the program, particularly the remuneration of the G.Ps., and the volume of work they have to do and all the other assortment of difficulties about which they feel very strongly.

Coming back to these men who were *not* in the heavily populated areas, and they comprise a very large proportion of the doctors, of course, these men normally depended largely on their private practice for their support. And a good many of them had pretty good practices as they go. Practically all that practice, however, has disappeared. It is probably true that not more than 5 or 6 or 7 per cent of all the practice that now takes place is now "private" in England, Wales and Scotland. Because of the amount of private practice these men did they obviously did not do as great a proportion of panel work under the old system. So, when national health service came along it was inevitable that they should take a beating. They lost their private patients. Most of them signed up under the new system. And they didn't have enough panel patients to carry over into the new plan. So, instead of having a normal list of patients today many of the men are struggling with a list of perhaps a quarter of the average size. Inasmuch as they were men, too, who formerly did pretty well financially, their loss has been compounded to that extent.

Irrespective of differences in public and professional reaction to the new scheme, there is one big area of agreement, everybody believes, as I am sure they do here, that the needy must have adequate medical care. If a man can't afford medical service, or if he can afford only part of it, he must have some help. And they feel there as a good many people do here that tax funds should be set aside for that purpose to the extent that the national health service takes care of the needy. And, therefore, it is looked upon with favor even by its critics. That portion of the British scheme has come to stay, which is all to the good.

It is easy to foresee a government health service in the United States which will show quite a difference from what you see in the British Isles. Americans still haven't traveled along the road to socialism as the British have. They have not had 37 years' experience under a panel system such as the British have. Stronger opposition to an all-out health scheme would probably be likely in this country. And I think American doctors are less receptive to government medicine than are their British colleagues.

Yet, neither opposition by segments of the public nor by the medical profession here will permanently forestall a national health plan of some kind. Nor should it be forestalled, in my opinion. For the needy, at least, some plan is imperative. The time has come, I think, to help this movement rather than to oppose it. Given the right kind of direction the plan that finally emerges may very well be acceptable to both the public and the profession. But if any effort to set up a national scheme is opposed finally I think we are in for a bad time.

Now, here is an important point: British doctors feel the same way, and they have worked under both sides of this situation. We ought to take a lesson from them. Most of the men that I have talked with who were representative of the profession, and some of the public, too, (not the average worker, but the people who thought about this thing) are of the opinion that if there is one thing we should do over here it is to try to direct the effort to establish a national health plan in such a way that we will get a plan that is reasonable, that provides for those who need it and allows for a person who can pay for his medicine pay either in full or if he can't afford the full payment, at least to the extent of his ability.

Of course, you hear complaints among the public on the other side. They tell you that they dislike waiting in line. Some of the queues I have seen are pretty long. They tell you that they feel they are being rushed by the doctor. But by and large these complaints by the public do not bulk large. The people like the plan. I made a check among about 150 laymen scattered through the British Isles. Most of them definitely liked the scheme.

Of course, the full weight of the cost of the scheme hasn't yet been felt. It took ten years for the lights to go on again in Piccadilly after the war. And it may take several years again for the lights to go on in the minds of the British people before they realize the staggering cost of the health service they have bought for themselves.

The doctors' complaints about the scheme are large. Most of the doctors and some of the people even in the Ministry of Health, and I think certain members of the public, are agreed that the national health service has been a case of too much and too soon. Many practitioners told me that they thought the scheme should have been started on a much more gradual basis, and put on an operation of over 25 years or so. They felt that the initial money should have gone almost entirely toward the betterment of hospital facilities. Of course, that was largely a political measure, just as it is over here. And the thing that had to be done was the thing that would be politically expedient. That is why the plan was imposed all at one time. Any plan that is going to offer every kind of a service to satisfy the physical needs of man has more appeal politically than one that goes half way, or that takes care of only a segment of the population. That is one of the greatest hurdles we have to overcome. Some means must be found of selling a reasonable program to the public rather than having them get the impression that the only answer to this problem is to impose a full scale compulsory health insurance system for the entire population, whether they can afford to pay for medical service or not.

On the principle behind the national health service in England, then, there is wide agreement. Both the Conservative and the Labor parties, in fact, would like to have credit for it. The real issue, then, is not one of principle but of method.

If, in the near future, Britain's health experiment took a nosedive, it is probable that the Wagner-Murray-Dingell plan here would do likewise before it got started. But the early demise of the British scheme is not a prospect. Peace or war, prosperity or depression will probably decide its ultimate fate.

The national health service is only a part of the country's much broader social security program which covers unemployment, disability, old age and a host of other things. Most employees in Britain have been covered since before the first World War by national health insurance through the old panel system. Many doctors practiced almost entirely within the framework of that plan. Over the years, too, the tendency has been to broaden it. The national health service, which supplanted the old panel system on July 5, 1948, now includes not only employees but also their dependents and practically everyone else.

Meanwhile, there has been a vast change in the social consciousness of the British medical profession. In 1911 when the panel system was being proposed, doctors were opposed to it on every count. Last year's opposition, however, was not to the idea but to the means of putting it into effect. The British Medical Association did fight hard against certain proposals. It felt, for instance, that the Minister's recommendation of a basic salary for all doctors was poison and everything should be done to prevent it. Well, they were successful. There is no basic salary for all practitioners.

It insisted, too, that there be no undue interference where a doctor might set up practice. And that insistence was largely satisfied.

The Medical Association tried to prevent the Ministry from prohibiting the buying and selling of practices. There it did not succeed. However, the doctor when he retires or dies is supposed to receive a fair remuneration for the amount he has invested in the practice in the past.

As a result of these and other concessions, the British medical profession found the national health service, while not acceptable, somewhat less distasteful than it had been when originally proposed. But Health Minister Bevan had pulled a fast one. There was a provision in the Act by the terms of which the doctor would be paid the value of his practice since he could no longer sell it only if he signed up with the new service by July 5, 1948. The average practice was a valuable property. Threatened with the loss of that property many a doctor hurried to put his name on the dotted line.

The BMA has been accused of a policy of vacillation at the time negotiations with the Ministry were under way. Some leaders of the Association are charged with pretty dire things, having done an eleventh hour about-face, for instance, and with having won valuable appointments for themselves by urging the rank and file to get on the government bandwagon. These things I think can be discounted.

The deciding factor is that the bulk of the British doctors, as one man put it to me, have sold their freedom for the money they invested in their practices. No doubt many of them were thinking of the financial interest of their families. But their devotion has cost them plenty.

Gone now is the incentive of the want to make a substantial income by hard work and sacrifice. No doctor practicing under the NHS has to sacrifice. It isn't the same as it was in the good old days. As a matter of fact, extra work over and above the normal amount required doesn't bring him a great deal more in the way of financial return.

The British G.P. is allowed a maximum list of 4000 National Health Service patients. For each of these he is paid technically $3.60 a year. Actually it amounts to nearer $3.00 a year. Expenses average about 40 per cent of a man's gross. So that the maximum size list may net only $7000 compared with about $11,000 a year among independent doctors in this country.

But that is not all. Not every G.P. wants or can care for 4000 patients. I doubt if many of you would like to try it. There are some conscientious doctors there, who don't take 4000 patients; they may take 2000. That obviously cuts their income proportionately. But if they don't do that they feel they can't give their patients the attention they need. There is certainly no argument with that point.

Technically, of course, the G.P. can remain in private practice just as the specialist can. But inasmuch as 93 per cent of the people are signed up under the health service, and most of them are using it, the general practitioner who stays out of the plan generally won't have enough private patients to support him. So he is forced into the scheme. He has been a victim of what one doctor called financial blackmail by the State.

The Health Ministry will probably deny this, but in my opinion its ultimate hope is to have all British doctors practicing solely on salary full time in the Health Service. Of course, right now they don't have the Health Centers. This would mean putting the profession on a civil service status. And, of course, this is the whole crux of the argument between the profession and the government. So far there isn't much evidence, truthfully, of doctors being regimented under the National Health Service. But there is a great deal of fear of regimentation later. Just as most of the British people are now signed up under the national health service, so most British doctors, dentists, nurses, druggists and related workers are also signed up.

Some idea of the scope of the service can be gained from a few of the current figures for England and Wales. For example, 150 million prescriptions are now being written each year. This means an average of more than three prescriptions per person per year. And when you consider the fact that some patients don't consult their doctors you can see what the average is for those who do.

Eight to ten million pairs of glasses are being requested by the public each year. And of these about one-third of the requests are for two pairs, not one. The first pair might break.

More than 3000 hospitals and clinics were taken over by the government on the "appointed day", as they call July 5. Those that are not in the system number only 200 odd.

And in the scheme's first few months of operation hearing aids were being handed out at the rate of 4000 a month. The demand has now exceeded the supply, much to the embarrassment of the Ministry. So, the applicants are being gently put off for a while.

Up to the end of January of this year 10,000 artificial arms and legs and 15,000 pairs of surgical boots were ordered, plus a thousand and one other things. Surgical appliances ordered total over 103,000. There have been 4000 artificial eyes ordered, and so on. Obviously, this has made quite a change in the number of people required to administer the system, and the personnel of the Ministry of Health Headquarters alone has been increased by 50 per cent in the first nine months.

About half of the 50 million people in the United Kingdom now contribute to the social security system. The other half are not so insured. However, both the insured and the non-insured persons get the benefit of the national health service. Everybody is covered. The only advantage the insured have is, of course, they get the benefits of the other provisions of the different social security programs that are in effect.

For national health service coverage of the 50 million people in the United Kingdom, the British Government will pay (according to official estimates for 1949-1950) almost one and a half billion dollars. Total social security costs all combined are about two and one-third billion dollars. So, it may be seen that the health requirements of the social security program will take more than 60 per cent of all social security funds. Britain's total budget for 1949-1950 is 12 billion dollars. The Health Service, therefore, accounts for more than one-tenth of the entire governmental outlay proposed, including the astronomical cost of national defense. Official estimates of the cost of the National Health Service have always been far below the actual cost. So, it is not unlikely that the health outlay in the next year may be in excess of the one and a half billion dollars estimated.

Dr. Frangeon Roberts of Cambridge, who has made an intensive study of National Health Service costs, estimates that the annual bill for the British scheme, when in full operation, will at least be $2,300,000,000 a year. And the cost may continue to rise even beyond that, he says. Nor does this figure take into account the proposed capital expenditures of about one and a half billion dollars for health centers and another one and one-half billion dollars for hospital beds, plus the cost of servicing those facilities.

Whether Britain can meet these staggering costs is doubtful. There are rumors that it may be necessary to cut expenses by making a small charge when a patient sees the doctor or when he occupies a hospital bed. These are rumors, of course. But I have heard them in quite a few places. And it seems possible that something of that sort may be done if the costs continue to soar. Hospital budgets have been cut sharply, too, with the result that headlines in the recent weeks have been common all over the Kingdom announcing the possible closing of hospital beds in many sections of the country if no money is made available to the hospitals. Originally, when the Health Act came into being, the hospital people who had been suffering badly felt that their financial worries were over. Now they are just about back where they started. The Labor Party is in the embarrassing position of being caught between the inevitable rise in the cost of the Health Service, which they can't seem to control, and the equally inevitable need of sticking to an austerity budget nationally.

When we talk about the British Health Service costing a billion or two a year, we have to remember that this is not entirely a new expenditure. No matter what kind of a system is in operation, medical care must still be paid for. If there were no national health service in Britain, what would the community be paying for medical care? Nobody knows. A source in the Health Ministry, who certainly shouldn't be prejudiced against the plan, estimates that if the Health Service were not in operation the country would be paying for health care, about two-thirds of what it is now paying. If that is so, the added benefits of N.H.S. are costing about a half billion dollars extra a year.

Personnel working under the National Health Service total about a half million people. This includes 200,000 doctors, nurses, dentists and other professional people. The remaining 300,000 are the persons required to make the wheels of the service turn. That is in the Ministry and in all the local councils and in all the hospitals, right down to the charwoman. About 10,000 of the total number of workers, (and these are the important elements) work without pay. They are the ones who direct the work of the hospital councils, the medical councils, the committees and all the other voluntary administrative units set up under the Act. Whether this 300,000 figure is a reasonable one is anybody's guess. There is no adequate means of comparison. But the answer to that question is not so important as the number of operating personnel who will be needed as time goes on. The tendency of a bureaucracy toward self-perpetuation and self-extension is too well known to need comment.

Several years ago, under the joint auspices of the government and the profession, a committee was formed to determine fair remuneration for medical practitioners. The Spens Committee made its recommendations in terms of 1939 value of money, and in terms of net income. This report was turned in just before the new National Health Service came into operation. Everyone at that time, both in and out of the profession, seemed to feel that the Committee's recommendations were eminently fair, so the report was adopted.

The hitch has been this. Inasmuch as the calculation was on the value of money in 1939, it was necessary to increase those figures to take care

of the rise in the cost of living. As it worked out, only 20 per cent was added for this purpose. And that was not enough to take care of the actual cost of living as it has risen in that period. So, to that extent the recommendations of the Committee were not thought to have been implemented, and there is a great deal of bitterness about it, particularly among the practitioners who have been affected most strongly by this.

The method of paying general practitioners is as follows: there is a central pool set up on the basis of $3.60 per capita for 95 per cent of the population. From this is deducted the mileage fund. The balance is then distributed among the local executive councils under whose direction the doctors work. The councils then deduct from that sum various amounts of such things as the payment for emergency treatment; for the care of temporary residents; for the giving of anesthetics; and for the relatively few cases where an annual payment is made regularly to a doctor. What is left is then distributed among the doctors in proportion to the number of persons on the list of each man. Thus, the capitation fee, while technically $3.60 per head, actually varies in the different areas depending on the number of people enrolled and on the non-capitation payments that have to be deducted from the central pool before it is divided.

The $1200 basic salary originally urged by the government for all doctors is now given only to those who apply for it and who can show need. For example, many young doctors who are trying to get started in practice and who have no list of patients to begin with. And, older men who because of their age or physical infirmities are unable to handle a large list of patients. The N.H.S. doctor is allowed to accept no fees from a National Health Service patient except with the consent of his local council. There are reports of men receiving gifts from patients. He evades the regulation perhaps by receiving a few bottles of Sherry in return for some consideration. But I don't think that is very wide-spread.

Lists of G.Ps. and specialists are on display in all post offices. A patient who wants a doctor simply goes to the post office, picks out a name and goes to see the doctor, presents his registration card and asks to be admitted to the doctor's list. The doctor can refuse him; or if he has a panel below 4000 he can accept him. If the doctor accepts the patient he then makes out a form in the patient's name. The patient signs the form and gets a card showing that he is on that particular doctor's list. The patient may then visit the doctor, of course, during his regular office hours or may call for him at his home if there is legitimate need for it. Often there isn't. Once the doctor accepts the patient he is legally obligated to attend to him. The patient gets examination, he gets medicines, and appliances. In many cases he is (because time is short) referred to a specialist. There is a great deal of buck passing among practitioners. They simply don't have the time to examine the 50 or 60 people who come in during the course of the day. They refer these patients to specialists. They send them to the hospitals. The hospitals are filled up. They are in a worse position than before this Act came into being.

The G.P. who calls on a patient more than two miles from his office gets a mileage fee. Such fees don't amount to a very substantial increase in the man's income. In some cases they do little more than pay for the cost of operation of the car. As a result there is considerable complaint about that. Most physicians feel that the mileage fee ought to be increased. And they feel that the capitation fee ought to go up. There is a great deal of complaint on that score.

One of the worst things about the scheme is the fact that the man who tries to give better service often gets no more in return than the fellow who does just the opposite. You get an incentive to please the patient only in the case where a doctor is in a heavily populated area and there are more doctors, we'll say, than should be there and there is a considerable amount of competition ordinarily enough among the doctors for the patients who are available. But in most communities this sort of situation doesn't exist. You don't find too much desire on the part of the doctor to try to please the patient; and if he did have that desire he woudn't have the time.

The capitation fees for those doctors who get a basic salary are reduced by one-seventh. This increases the pay of the doctor with a small list of patients. Yet the man with a large list does better without the basic salary so he doesn't apply for it.

Emergency treatment, maternity cases and the administration of anesthetics are paid for on a fee-for-service basis. These offer a G.P. a means of augmenting his income to some extent. In addition there are "inducement payments" offered to the men to go and practice in areas where there are not enough doctors. So far the inducements have not been sufficient to draw men to many areas where they are badly needed. In addition they have a means by which doctors who agree to train assistants are paid small additional fees.

Doctors are required to take part in the pension scheme that covers all National Health Service personnel. For this, 6 per cent of the doctor's net income is withheld and the government contributes 8 per cent.

In return for what he is paid under the N.H.S. the G.P. has to render various services. Much of his time goes in examination of the patient and much in the filling out of certificates for a host of things that are required not so much by the National Health Service as by other acts. Doctors are obliged under the terms of the law to issue free of charge any certificate needed by the patient for the purpose of any enactment. This makes it pretty broad. Actually, there are, according to the chairman of a committee of the B.M.A. who is trying to simplify the number and type of forms, 150 blanks that the practitioner may be called upon to sign at one time or another. Most of the men I talked with felt that they were spending two hours a day, everyday, filling out forms and signing certificates. Obviously, that is time that might be used otherwise in taking care of a patient.

In a good many instances specialists are doing better financially than G.Ps. A new set of proposals that would further increase specialists' pay now appears ready for adoption. If that is approved the G.Ps.' income, if not similarly raised, will be so low in proportion that a good many general practitioners will undoubtedly get into specialties. Actually the need is for more G.Ps. Some specialists work full time in hospitals and medical schools. But more of them find it advantageous to practice part time because then they can deduct certain practice expenses that they could not if they were working on a full time basis for an institution.

The specialists now get paid for their hospital work, which in most cases, of course, they didn't before. And that is the prime advantage in the eyes of some of them. They are allowed up to eight "sessions". Each "session" entails about three hours' work a week at the hospital. For each session they are paid at the rate of $800 per year. Now, you might assume that most of the men would have eight sessions. But most of the time they have private practice left or if they have other things to do along with this they can't afford to give the time for eight sessions. A number of the men I talked with were handling about four sessions which means they were earning from their hospital work three or four thousand dollars a year. The specialist is also paid a nominal fee for consultations in the patient's home.

There is no equivalent in Britain of the American Specialty Boards. So, there is no means of determining who is a specialist. The way it works is that a doctor on a hospital staff doing orthopedics is automatically regarded as an orthopedist. If he has no hospital appointment he isn't one, irrespective of the fact that he may have had an appointment before.

Now, for the first time, a resident while in training for specialty work is paid a living income rather than a token income. This aid in the early years, the government feels, should be considered to offset the somewhat lower income of that specialist later on, as compared to what he would otherwise have in private practice.

The young doctor also gets an advantage in that he doesn't have to go into debt for a considerable sum in order to buy himself a practice. This is one of the greatest advantages in the system from the point of view of a young physician.

The government places great emphasis on the social security the doctor now enjoys under the National Health Service. It doesn't point out that the practitioner is getting that security at the eventual price of much of his personal freedom. The same choice between security and freedom must be made in this country.

Regionalization of hospitals has very definite benefits in that it permits the advantages of group practice, consultations among doctors in different specialties, certain pooling of equipment, probably availability of better equipment, and similar benefits. A group of hospitals will often embrace 1000 beds, but the actual number varies rather widely.

It seems to me after being in Britain for a while the most important thing we can do here in combatting a national health program of the kind that would cover the entire population is to try to sell the people on the benefits of a reasonable plan that would help the needy. Not just the indigent but those who are fairly well down the financial scale and who can't afford a payment for a complete service. They need additional diagnostic work and they can't afford it. Let them get some aid. But don't impose the system on everybody willy-nilly. The people who can afford to pay for their care should pay for it. And you will find that most British doctors who have seen this thing from both sides are in agreement on that point. If we can get people in and out of Washington who can put that idea across to the public and who have the know-how to do so, we will have a much better program in the longer run than what the Wagners and the Murrays and the Dingells can prescribe for us. (Applause)

PRESIDENT HORNBERGER: Thank you very much, Mr. Richardson. I am sure that we have all learned a great deal from your very fine remarks.

This meeting will stand adjourned.

(The meeting adjourned at 12:10 o'clock.)

TRANSACTIONS OF THE WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

TWENTY-SECOND ANNUAL MEETING

The 22d Annual Meeting of the Woman's Auxiliary to The Medical Society of New Jersey was held at the Ambassador Hotel, on April 27, 1949. The invocation was given by the Reverend Harvey Bennett, D.D., of the First Presbyterian Church, Atlantic City.

Mrs. David B. Allman presented the program and moved its adoption. This was seconded by Mrs. G. E. McDonnell and carried.

Address of Welcome: Mrs. Harry Subin, president of the Woman's Auxiliary to the Atlantic County Medical Association.

Response: Mrs. Norman Nathanson, president-elect of the Woman's Auxiliary to The Medical Society of New Jersey.

The president introduced Mrs. Luther H. Kice, President of Woman's Auxiliary to the American Medical Association.

Mrs. Rolfe Westney, co-chairman of the Credentials Committee presented the initial report showing 209 registered to date.

The parliamentarian, Mrs. William E. Dodd, read the rules and procedure of the convention and moved their adoption. This was seconded by Mrs. Wandall and carried.

A Memorial Service was conducted by Mrs. Oswald R. Carlander, past-president, for the following deceased members:

Camden County, Mrs. John S. Owens; Essex County, Mrs. Edward W. Sprague; Hudson County, Mrs. Thomas Halligan; Mercer County, Mrs. R. J. Horwell; Somerset County, Mrs. William Jones.

Mrs. Philip J. Santora moved that the minutes of the 21st Annual Meeting be approved as printed in the August TRANSACTIONS. This was seconded by Mrs. Carlander and carried.

The treasurer, Mrs. G. E. McDonnell, submitted her Annual Report showing a balance of $1450.47. Mrs. J. Howard Hornberger, chairman of the Auditing Committee, reported that the treasurer's books had been audited and found correct. Mrs. Wandall moved that the report of the treasurer together with the attestation of the auditing committee be accepted.

The President introduced Mrs. H. Murray, President of the Woman's Auxiliary to the Medical Society of Delaware, and Mrs. Lawrence Jones, also of Delaware.

Mrs. Daniel C. Reyner, first vice-president, was requested to take the chair during the presentation of the president's report. Mrs. Mancusi-Ungaro moved that the report of the president be accepted with our deepest thanks. This was seconded by Mrs. Allman and carried.

Mrs. Ruffin Stamps moved that the reports of officers be accepted as a whole upon completion of their readings. This was seconded by Mrs. Hornberger.

Reports were submitted by the following officers:

President-Elect, Mrs. Norman Nathanson; First Vice-President, Mrs. Daniel C. Reyner; Corresponding Secretary, Mrs. Nathan Karshmer; Directors, Mrs. Chester Ulmer, Mrs. Samuel Jessurun, Mrs. Frank S. Forte, Mrs. Asher Yaguda.

The pending motion to accept this report as a whole upon completion of their readings was carried.

Mrs. Wandall moved that the reports of committee chairmen be accepted as a whole upon completion of their readings. This was seconded by Mrs. Carlander.

Reports were submitted by the following Committee Chairmen:

Archives	Mrs. R. John Cottone
Conference Workshop	Mrs. Norman Nathanson
Credentials	Report read by Secretary
Finance	Report read by Secretary
Historian	Mrs. J. Howard Hornberger
Hygeia	Mrs. Frank S. Forte
Legislation	Mrs. Oswald R. Carlander
Medical History	Mrs. Samuel H. Jessurun
Organization	Mrs. Daniel C. Reyner Mrs. Joseph E. Mott
Parliamentarian	Mrs. William E. Dodd
Press and Publicity	Mrs. Thomas H. McGlade
Program	Mrs. James H. Mason
Rural Health	Mrs. Frederick G. Wandall
Urban Health	Mrs. Paul E. Rauschenbach
School Health	Mrs. Edward Tyson

Public Relations ..... Mrs. Asher Yaguda
Health ..... Mrs. E. Vernon Davis
Postwar Planning ..... Mrs. Philip J. Santora
Safety ..... Mrs. Robert C. Anderson
Printing ..... Mrs. Edward H. Dyer
Widows and Orphans ..... Mrs. Ernest F. Purcell

The pending motion to accept these reports as a whole upon completion of their readings was carried.

The President thanked Mrs. B. D. Jacobson for her assistance with the state *Bulletin* and discharged this Committee.

The President introduced Mrs. Daniel Bergsma, wife of the Commissioner of Health, and Mrs. Drury Hinton, President-Elect of Pennsylvania's Auxiliary.

Mrs. Mason moved that the reports of county presidents be accepted as a whole upon completion of their readings. This was seconded by Mrs. Dyer.

Reports were submitted by the following County Presidents:

Atlantic ..... Mrs. Harry Subin
Burlington ..... Mrs. R. Winfield Betts
Camden ..... Mrs. Harold D. Barnshaw
Cape May ..... Miss Esther Dandois
Essex ..... Mrs. Robert C. Anderson
Gloucester ..... Mrs. J. J. Laurusonis
Hudson ..... Mrs. William J. Gleeson
Mercer ..... Mrs. John F. Kustrup
Middlesex ..... Mrs. Nathan Karshmer
Monmouth ..... Report read by Secretary
Ocean ..... Report read by Secretary
Passaic ..... Mrs. Peter J. DeBell
Somerset ..... Mrs. Lewis C. Fritts
Union ..... Report read by Secretary
Warren ..... Report read by Secretary

The pending motion to accept these reports as a whole upon completion of their readings was carried.

Mrs. Merendino, acting credentials chairman, submitted the intermediate credentials report showing a total of 296 registered to date.

The meeting recessed for luncheon.

Following a luncheon in honor of the president, Mrs. Robert B. Walker, the meeting reconvened at 3:20 p. m.

Mrs. James Mason announced that the A.M.A. Convention will be held in Atlantic City, June 6 to 10 at Haddon Hall, and gave a brief resume of the program.

Mrs. Reyner moved that the members give a rising vote of thanks to our president, Mrs. Robert B. Walker, for the splendid work she has done this year.

Mrs. Andrew C. Ruoff, chairman of the committee on revisions, submitted the following revision and moved its adoption:

Chapter V, Section 1. Each County Auxiliary shall pay annual dues to the State Auxiliary at the rate of two dollars per capita, one dollar of which shall go to the National Auxiliary.

This was seconded by Mrs. Mason and carried.

Mrs. Ruoff submitted the following revision and moved its adoption:

Chapter VI. (To be divided into sections and Section 2 added).

Section 1. The Standing Committee and their duties are as follows: etc.

Section 2. Meetings of committees shall be called by the chairman at a time and place approved by the President of the Auxiliary.

Section 3. It shall be the duty of each chairman to turn over the books and materials relative to her office within two weeks after the expiration of said office.

This was seconded by Mrs. Ruffin Stamps and carried.

Mrs. Ruoff read the proposed revisions to the National By-Laws. Mrs. Yaguda moved that our delegates be instructed to vote in the affirmative on these proposed amendments. Seconded by Mrs. Dyer and carried.

The following members were proposed to serve on the nominating committee of which Mrs. Robert B. Walker will be chairman:

Mrs. Frederick G. Wandall
Mrs. Richard J. McDonald
Mrs. Harold D. Barnshaw
Mrs. D. Leo Haggerty

Mrs. Reyner moved that the above members be elected to serve on the nominating committee. Seconded by Mrs. Casselman, this was carried.

Mrs. Lodovico Mancusi-Ungaro, chairman of the nominating committee, submitted the following candidates for election:

Mrs. R. John Cottone ..... President-Elect
Mrs. Edward Dyer ..... First Vice-President
Mrs. Banks S. Baker ..... Second Vice-President
Mrs. Asher Yaguda ..... Treasurer
Mrs. Francesco Figurelli ..... Recording Secretary
Mrs. Frank L. Perry ..... Director
Mrs. William C. Wells ..... Director

Mrs. Casselman moved that the secretary be instructed to cast the unanimous ballot for the election of the above named candidates. Seconded by Mrs. Wandall, this was carried.

The secretary cast the ballot and the president declared the above candidates duly elected.

The president, Mrs. Robert B. Walker, installed the newly elected officers and presented the gavel to Mrs. Norman Nathanson.

Mrs. Stewart Alexander, chairman, presented the following resolution and moved its adoption:

Whereas, the 1949 Session of The Medical Society of New Jersey has come to a close; and

Whereas, the great success of the year is due to the untiring efforts of the president of The Medical Society, Dr. J. Howard Hornberger, and the president of the Woman's Auxiliary, Mrs. Robert B. Walker, it behooves me on behalf of the Auxiliary to The Medical Society of New Jersey to extend to them sincere thanks and appreciation; and

Whereas, the success of the convention would not have been complete without the untiring efforts of Mrs. David B. Allman, general chairman, and the members of her committee: Mrs. Robert A. Bradley, tickets and reservations; Mrs. Anthony G. Merendino, credentials and registration; Mrs. Harry Subin, tea and flowers; the Junior Aides, Mrs. Lawrence Wilson, luncheon, and Mrs. David B. Allman, dinner; I take great pleasure in extending the thanks of the Auxiliary to the Medical Society; and

Whereas, without the willing efficient aid of Mrs. Edith L. Madden, Convention Manager, whose pleasant smile and patience guide our convention smoothly and successfully, the Auxiliary to the Medical Society takes great pleasure in extending their thanks; and

Whereas, the Auxiliary to the Medical Society extends thanks to the management of the Ambassador Hotel for the fine cooperation and aid in making the convention a success, now be it therefore,

Resolved, that this resolution be spread in full upon the minutes of The Woman's Auxiliary to The Medical Society of New Jersey, and be it further

Resolved, that a copy of this resolution suitably prepared be presented to those concerned.

This was seconded by Mrs. Subin and carried.

The president appointed Mrs. Oswald R. Carlander and Mrs. Frederick G. Wandall to serve on the reading committee.

Mrs. Anthony G. Merendino, acting chairman of credentials, presented the final credentials report showing a total of 351 registrations.

Mrs. Norman Nathanson accepted the gavel and the office of president.

There being no further business, the president declared the 22d Annual Meeting adjourned.

ANNUAL REPORT OF PRESIDENT

MRS. ROBERT B. WALKER

The tireless Finger of Time has brought to a close another year in the annals of our auxiliary. This year, with a brilliant auxiliary record born of enthusiasm marching on one side and the need for cautious attention to detail and financial stability on the other, I chose the middle of the road where enthusiasm could be tempered with sound judgment and still be progressive and where we could prove to our parent-body, The Medical Society that we can be good executives and business women.

My first official duty was to present, in person, my program for the year to the Board of Trustees. I was received with utmost courtesy; my program was approved and $3000 was allotted for our budget. I have tried to use this money wisely and, by economizing where the work of the Auxiliary was not actually hampered, I have succeeded in saving $500, not included in the budget, toward entertaining the American Medical Association at their convention in June. Thus, fulfilling the purpose for which we were originally organized: the role of dignified hostesses.

Following the decision of the members of the executive office that they could no longer handle our stenographic work, the task of planning some other means by which our work could be efficiently done became my duty.

With the assistance of one of my own county auxiliary members, Mrs. Benjamin Jacobson, and of my corresponding secretary, Mrs. Nathan Karshmer, all notices, letters and official work has been accomplished on schedule.

As your president I have made official visits to 16 of the 18 organized auxiliaries. I have attended all public health programs in the counties; and have made 45 trips to other meetings throughout the state, including meetings of The Medical Society's Welfare Committee, Advisory Board, Speakers Bureau in connection with compulsory sickness insurance and those pertaining to all phases of auxiliary work. I have been present at three New Jersey State Safety Council meetings, and as your representative, I attended the luncheon in honor of Governor Driscoll; the annual meeting of the New Jersey State Health and Sanitary Association; and accompanied by Mrs. Carlander, I was present at a preview of the new Health Unit Bill, held at the State House, Trenton.

I journeyed to Chicago in June to attend the A.M.A. Convention and again in November for the mid-year conference of presidents and presidents-elect. As a gesture of friendship and good will I accepted invitations to the New York state convention and the Pennsylvania state convention. With my husband, I was a guest at the delightful dinner dance celebrating the centennial of the Mercer County Medical Society, and again in Ocean County at the equally delightful combined dinner of the medical society and their auxiliary. Because of the pressure of auxiliary work many invitations from other states and organizations had to be foregone.

I presided at four Executive Board Meetings. I spent a day in Trenton with the incoming president, reviewing the work of the auxiliary and assisting in drawing up the budget for the ensuing year. At all times I have tried to be of assistance to her and my association with her has been friendly and pleasant.

I would be remiss, if I failed to pay a special tribute to Dr. J. Howard Hornberger, President of The Medical Society, upon whose sound judgment and complete cooperation I could at all times rely; to Dr. William E. Dodd, Advisor to the Auxiliary and his committee for their guidance and their never failing efforts to be of assistance in the work of the Auxiliary; to Mr. James E. Bryan for his interest and sound advice; to Mrs. Madden and her office force for their courtesy, at all times; and to Dr. Davidson and his assistant, Mrs. Armstrong for their direction, and for the space allotted to us in the JOURNAL.

An important accomplishment, this year, was the publication of *The New Jersey News-Note*. With a budget of only $150 for this purpose 3000 copies were issued. It is my hope that this paper will grow with each edition and will contain information of value in the work of the Auxiliary. I trust that its pages will be used for material formerly sent to the medical JOURNAL; thus saving space for the important work of The Medical Society.

On June 7, Dr. Dodd and I presented a radio talk on the history and accomplishments of the Auxiliary. It was given as a prelude to the most successful public relations program which highlighted the year's project on rural health, implemented by Mrs. Yaguda and Mrs. Wandall. Mrs. Yaguda has worked untiringly and has left no stone unturned to make this program a success. My sincere appreciation to her, her co-chairmen and to all of you who have assisted in this fine work. It has been established for continuity and we hope in the coming year it will bear much fruit.

Although three counties remain unorganized, the work of the organization chairmen has been so tactful, that a seed of good will has been planted in these counties which in the near future should lead to their joining our ranks.

In assisting the medical society in their fight against federally controlled medicine, we have made contact with lay organizations, seeking their vote against the bill. It is assuring to note that in New Jersey both the Daughters of the American Revolution and the Federation of Women's Clubs have gone on record as opposing the bill. I sent telegrams to each county auxiliary asking that they get in touch with their Congressmen and Senators, stating why the bill should not be passed.

My pleasure in working with the counties has been immeasurable. Their friendship, efforts and courtesies will be one of my most cherished memories. My Auxiliary Advisory Board, officers and chairmen have at all times been cooperative and helpful and to them I give full credit for our measure of success. To each and every one I am deeply grateful; and as a grateful heart is the mainspring of happiness, my year as your president has been filled to the brim with joy and pride in your loyalty and in your accomplishments.

APR 2

The Medical Society of New Jersey

Official List--March 1, 1949

OF

FELLOWS AND MEMBERS

Supplement to The Journal of The Medical Society of New Jersey, April, 1949

The Medical Society of New Jersey

OFFICIAL LIST—MARCH 1, 1949

of

FELLOWS AND MEMBERS

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OFFICIAL LIST OF MEMBERS
OF
THE MEDICAL SOCIETY OF NEW JERSEY
FOR THE YEAR 1949

FELLOWS

"THE FELLOWS ARE THE EX-PRESIDENTS OF THE SOCIETY." (Constitution, Article IV, Section 2-a)

Year of Election

1. 1766—Robert McKean, Perth Amboy, 1732-1767
2. 1767—William Burnet, Newark, 1730-1791
3. 1768—John Cochran, New Brunswick, 1730-1807
   1769—John Cochran, No. 3, reëlected
4. 1770—Nathaniel Scudder, Freehold, 1733-1781
5. 1771—Isaac Smith, Trenton, 1740-1807
6. 1772—James Newell, Freehold, 1725-1791
7. 1773—Absalom Bainbridge, Lawrenceville, 1742-1807
8. 1774—Thomas Wiggins, Princeton, 1731-1801
9. 1775—Hezekiah Stites, Cranbury, 1726-1790

No formal meetings 1776-1780 on account of the War of the Revolution.

1781—James Newell, No. 6, reëlected

10. 1782—John Beatty, Trenton, 1749-1826
11. 1783—Thomas Barber, Matawan, 1730-1807
12. 1784—Lawrence Vander Veer, Roycefield, 1740-1815
13. 1785—Moses Bloomfield, Woodbridge, 1729-1791
    1786—William Burnet, No. 2, reëlected
14. 1787—Jonathan Elmer, Bridgeton, 1745-1817
15. 1788—James Stratton, Swedesboro, 1755-1812
16. 1789—Moses Scott, New Brunswick, 1738-1821
17. 1790—John Griffith, Rahway, 1736-1805
18. 1791—Lewis Dunham, New Brunswick, 1754-1821
19. 1792—Isaac Harris, Middlesex County, 1741-1808

No elections held in 1793 and 1794 because quorum not present.

20. 1795—Elisha Newell, Allentown, 1755-1799

No formal meetings 1796-1806 owing to an attempt to establish a rival society in Eastern New Jersey.

21. 1807—Jonathan F. Morris, Somerville, 1760-1810
22. 1808—Peter I. Stryker, Somerville, 1766-1859
23. 1809—Lewis Morgan, Rahway, 1757-1821
24. 1810—Lewis Condict, Morristown, 1773-1862
25. 1811—Charles Smith, New Brunswick, 1768-1848
26. 1812—Matthias H. Williamson, Elizabeth
    1813—Matthias H. Williamson, continued for second year
27. 1814—Samuel Forman, Freehold, 1764-1845
28. 1815—John Van Cleve, Princeton, 1778-1826
    1816—Lewis Dunham, No. 18, reëlected
    1817—Peter I. Stryker, No. 22, reëlected
    1818—John Van Cleve, No. 28, reëlected
    1819—Lewis Condict, No. 24, reëlected
29. 1820—James Lee, Newark
30. 1821—William G. Reynolds, Manalapan

Year of Election

31. 1822—Augustus R. Taylor, Somerville, 1782-1840
32. 1823—William B. Ewing, Greenwich, 1776-1866
    1824—Peter I. Stryker, reëlected. Also served 1808 and 1817.
33. 1825—Gilbert S. Woodhull, Manalapan, 1794-1830
34. 1826—William D. McKissack, Millstone, 1781-1853
35. 1827—Isaac Pierson, Orange, 1770-1833
36. 1828—Jephtha B. Munn, Chatham, 1780-1863
37. 1829—John W. Craig, Somerset County, 1795-1871
    1830—Augustus R. Taylor, No. 31, reëlected
38. 1831—Thomas Yarrow, Sharptown, 1778-1841
39. 1832—E. FitzRandolph Smith, New Brunswick, 1786-1865
40. 1833—William Forman, Monmouth County. 1796-1848
41. 1834—Samuel Hayes, Newark, 1776-1839
42. 1835—Abraham P. Hagerman, Somerset County
43. 1836—Henry Vander Veer, Somerville, 1792-1874
44. 1837—Lyndon A. Smith, Newark, 1795-1865
45. 1838—Benjamin H. Stratton, Mt. Holly, 1804-1875
46. 1839—Jabez G. Goble, Newark, 1799-1859
47. 1840—Thomas P. Stewart, Hackettstown, 1798-1846
48. 1841—Ferdinand S. Schenck, Six Mile Run, 1790-1860
49. 1842—Zachariah Read, Mt. Holly, 1808-1879
50. 1843—Abraham Skillman, Bound Brook, 1796-1862
51. 1844—George R. Chetwood, Elizabeth, 1802-1885
52. 1845—Robert S. Smith, Bound Brook, 1800-1874
53. 1846—Charles Hannah, Deerfield, 1782-1857
54. 1847—Jacob T. B. Skillman, Woodbridge, 1794-1864
55. 1848—Samuel Hayes Pennington, Newark, 1806-1900
56. 1849—Joseph Fithian, Woodbury, 1795-1881
57. 1850—Elias J. Marsh, Paterson, 1803-1850
58. 1851—John H. Phillips, Pennington, 1814-1878
59. 1852—Othneil H. Taylor, Camden, 1803-1869
60. 1853—Samuel Lilly, Lambertville, 1815-1880
61. 1854—Alfred B. Dayton, Middletown Point, 1812-1870
62. 1855—James B. Coleman, Trenton, 1806-1877
63. 1856—Richard M. Cooper, Camden, 1816-1874
64. 1857—Thomas Ryerson, Newton, 1821-1887
65. 1858—Isaac Pierson Coleman, Pemberton, 1804-1869
66. 1859—John R. Sickler, Mantua, 1800-1886
67. 1860—William Elmer, Bridgeton, 1814-1889

Year of Election

68. 1861—John Blane, Perryville, 1802-1885
69. 1862—John Woolverton, Trenton, 1825-1888
70. 1863—Theodore R. Varick, Jersey City, 1825-1887
71. 1864—Ezra M. Hunt, Metuchen, 1830-1894
72. 1865—Abraham Coles, Newark, 1813-1891
73. 1866—Benjamin R. Bateman, Bridgeton, 1807-1883
74. 1867—John C. Johnson, Blairstown, 1828-1907
75. 1868—Thomas J. Corson, Trenton, 1828-1879
76. 1869—William Pierson, Orange, 1796-1882
77. 1870—Thomas F. Cullen, Camden, 1822-1877
78. 1871—Charles Hasbrouck, Hackensack, 1818-1877
79. 1872—Franklin Gauntt, Burlington, 1823-1900
80. 1873—Thomas J. Thomason, Perrineville, 1833-1880
81. 1874—George H. Larison, Lambertville, 1831-1892
82. 1875—William O'Gorman, Newark, 1824-1887
83. 1876—John V. Schenck, Camden, 1825-1882
84. 1877—Henry R. Baldwin, New Brunswick, 1829-1902
85. 1878—John S. Cook, Hackettstown, 1827-1900
86. 1879—Alexander W. Rogers, Paterson, 1814-1905
87. 1880—Alexander N. Dougherty, Newark, 1822-1882
88. 1881—Lewis W. Oakley, Elizabeth, 1828-1888
89. 1882—John W. Snowden, Blackwood, 1823-1888
90. 1883—Stephen Wickes, Orange, 1813-1889
91. 1884—Phanett C. Barker, Morristown, 1835-1903
92. 1885—Joseph Parrish, Burlington, 1818-1891
93. 1886—Charles J. Kipp, Newark, 1838-1911
94. 1887—John W. Ward, Trenton, 1840-1916
95. 1888—H. Genet Taylor, Camden, 1837-1916
96. 1889—Beriah A. Watson, Jersey City, 1836-1892
97. 1890—James S. Green, Elizabeth, 1829-1892
98. 1891—Elias J. Marsh, Paterson, 1835-1908
99. 1892—George T. Welch, Passaic, 1845-1924
100. 1893—John G. Ryerson, Boonton, 1834-1916
101. 1894—Obadiah H. Sproul, Flemington, 1844-1925
102. 1895—William Elmer, Trenton, 1840-1908
103. 1896—Thomas J. Smith, Bridgeton, 1841-1932
104. 1897—David C. English, New Brunswick, 1842-1924
105. 1898—Claudius R. P. Fisher, Bound Brook, 1859-1927
106. 1899—Luther M. Halsey, Williamstown, 1858-1921
107. 1900—William Pierson, Jr., Orange, 1830-1900
108. 1901—John D. McGill, Jersey City, 1846-1912
109. 1902—Edward L. B. Godfrey, Camden, 1850-1913
110. 1903—Henry Mitchell, Asbury Park, 1845-1919
111. 1904—Walter B. Johnson, Paterson, 1852-1922
112. 1905—Henry W. Elmer, Bridgeton, 1847-1907
113. 1906—Alexander Marcy, Jr., Riverton, 1860-1934
114. 1907—Edward J. Ill, Newark, 1854-1942
115. 1908—David St. John, Hackensack, 1850-1917
116. 1909—Benjamin A. Waddington, Salem, 1842-1917

Year of Election

117. 1910—Thomas H. MacKenzie, Trenton, 1847-1920
118. 1911—David Strock, Camden, 1850-1927
119. 1912—Norton L. Wilson, Elizabeth, 1861-1931
120. 1913—Enoch Hollingshead, Pemberton, 1843-1924
121. 1914—Frank D. Gray, Jersey City, 1857-1916
122. 1915—William J. Chandler, South Orange, 1842-1927
123. 1916—Philip Marvel, Atlantic City, 1856-1938
124. 1917—William G. Schauffler, Lakewood, 1862-1933
125. 1918—Thomas W. Harvey, Orange, 1853-1938
126. 1919—Gordon K. Dickinson, Jersey City, 1855-1930
127. 1920—Philander A. Harris, Paterson, 1852-1924
128. 1921—Henry B. Costill, Trenton, 1860-1935
129. 1922—James Hunter, Jr., Westville, 1866-1931
130. 1923—Wells P. Eagleton, Newark, 1865-1946.
131. 1924—Archibald Mercer, Newark, 1849-1931. Resigned.
1924—**LUCIUS F. DONOHOE,** Acting President
132. 1925—**LUCIUS F. DONOHOE,** Bayonne, born 1868
133. 1926—James S. Green, Jr., Elizabeth, 1864-1936
134. 1927—Walt P. Conaway, Atlantic City, 1873-1945
135. 1928—Ephraim R. Mulford, Burlington 1880-1939
136. 1929—Andrew F. McBride, Paterson, 1869-1946
137. 1930—**GEORGE N. J. SOMMER,** Trenton, born 1874
138. 1931—John F. Hagerty, Newark, 1869-1937
139. 1932—A. Haines Lippincott, Camden, 1867-1937
140. 1933—**FREDERIC J. QUIGLEY,** Union City, born 1883
141. 1934—**LANCELOT ELY,** Somerville, born 1875
142. 1935—**MARCUS W. NEWCOMB,** Browns Mills, born 1880
143. 1936—Francis R. Haussling, Newark, 1875-1941 —resigned
144. 1936—**SPENCER T. SNEDECOR,** Hackensack, born 1900
145. 1937—**WILLIAM G. HERRMAN,** Asbury Park, born 1890
146. 1938—William J. Carrington, Atlantic City, 1884-1947
147. 1939—**E. ZEH HAWKES,** Newark, born 1865
148. 1940—**WATSON B. MORRIS,** Springfield, born 1878
149. 1941—**THOMAS K. LEWIS,** Camden, born 1887
150. 1942—Elias J. Marsh, Paterson, 1875-1943
151. 1943—**RALPH K. HOLLINSHED,** Westville, born 1884
152. 1944—**JOSEPH F. LONDRIGAN,** Hoboken, born 1884
153. 1945—**SAMUEL ALEXANDER,** Park Ridge, born 1888
154. 1946—Frank G. Scammell, Trenton, 1877-1947.
155. 1947—**ROYAL A. SCHAAF,** Newark, born 1892.
156. 1948—**J. HOWARD HORNBERGER,** Roebling, born 1896

The names of living Fellows are in bold face type.

HONORARY MEMBERS

Year of Election

1. 1930—Joseph E. Raycroft, Princeton
2. 1939—Nathan B. Van Etten, New York
3. 1939—Haven Emerson, New York
4. 1945—Lucius F. Donohoe, Bayonne
5. 1947—Mr. John S. Thompson, Glen Ridge
6. 1948—Mr. William H. MacDonald, Trenton

EMERITUS MEMBERS

Year of Election

1. 1948—David R. Atwell, East Orange
2. 1948—John N. Connell, Jersey City
3. 1948—William Flitcroft, Waukesha, Wisc.
4. 1948—Hugo Gille, Jersey City
5. 1948—Thomas D. Keegan, Deal
6. 1948—Benjamin Older, St. Petersburg, Fla.
7. 1948—James H. Rosecrans, Hoboken
8. 1948—Samuel Selinger, Lake Work, Fla.
9. 1948—George H. Sexsmith, Los Angeles, Calif.
10. 1948—J. Philip Stout, Ren Bank
11. 1948—Henry F. Woefle, Weirs, N. H.

MEMBERSHIP SUMMARY

Atlantic	140	13
Bergen	355	18
Burlington	25	..
Camden	231	..
Cape May	35	..
Cumberland	70	..
Essex	1,334	49
Gloucester	44	1
Hudson	481	..
Hunterdon	30	..
Mercer	280	22
Middlesex	203	17
Monmouth	173	13
Morris	136	..
Ocean	37	..
Passaic	425	32
Salem	30	..
Somerset	65	..
Sussex	26	..
Union	456	..
Warren	38	..
Supplementary	123	..
	4,737	165

MEMBERSHIP OF COUNTY MEDICAL SOCIETIES

Comprising

THE MEDICAL SOCIETY OF NEW JERSEY

MARCH 1, 1949

ATLANTIC COUNTY (1)

Society organized June 7, 1880. Meets second Friday evening monthly, except in June, July and August. Annual Meeting in May.

ACTIVE MEMBERS

Allar, Ellis H., 115 St. Charles pl., Atlantic City
Allman, David B., 104 St. Charles pl., Atlantic City
Andrews, Clarence L., 1616 Pacific av., Atlantic City
Axilrod, Maurice H., 2620 Pacific av., Atlantic City
Baldwin, Charles H., 2829 Atlantic av., Atlantic City
Bassett, Norman H., 1616 Pacific av., Atlantic City
Bayer, Harold J., 1616 Pacific av., Atlantic City
Beir, Ily R., 3900 Atlantic av., Atlantic City
Bew, David F., 7500 Ventnor av., Margate City
Bew, Richard C., 1217 Pacific av., Atlantic City
Bradley, Robert A., 1616 Pacific av., Atlantic City
Brown, Francis S., 2216 Shore rd., Northfield
Brown, J. Carlisle, 1616 Pacific av., Atlantic City
Charlton, C. Coulter, 1616 Pacific av., Atlantic City
Clark, S. Worth, 152 S. No. Carolina av., AtlanticC'y
Cleary, Joseph P., Minotola
Collins, John F., 1208 Columbia av., Pleasantville
Corson, Filbert R., 101 S. Indiana av., Atlantic City
Crane, Bernard, 306 Pacific av., Atlantic City
Cutler, Milton, 554 Bellevue av., Hammonton
Dalton, S. Eugene, 101 S. Surrey av., Ventnor
Davidson, Harold S., 117 S. Illinois av., Atlantic City
deHellebranth, Roland T., 104 S. Fr'nkf't av.,Ventn'r
Dein, Harry, 1616 Pacific av., Atlantic City
Dierwechter, Reuben, 12 N. Providence av., Atl. City
DiNicolantonio, Vincent J., 3121 Atlantic av., Atl. C'y
Dintenfass, Arthur, 1616 Pacific av., Atlantic City
Diskan, Samuel M., 1616 Pacific av., Atlantic City
Durham, Robert B., 110 S. North Carolina av., Atl. C.
Durham, Royal E., 100 S. New Haven av., Ventnor
Dyer, Edward H., 102 S. Victoria av., Ventnor
Eckert, Walter L., 11532 Dilling st., N. Hollyw'd,Cal.
Ellenbogen, Leonard S., 5407 Atlantic av., Ventnor
Elliott, Frazier J., 10 N. Second st., Hammonton
Erber, Leonard B., 1902 Pacific av., Atlantic City
Ernst, Philip A., 16 E. Main st., Mays Landing
Esposito, Antonio L., 31 12th st., Hammonton
Ewens, Arthur E., 3600 Pacific av., Atlantic City
Feinstein, Louis, 410 Pacific av., Atlantic City
Fox, Wm. W., 101 S. Indiana av., Atlantic City
Frank, Myrtile, 227 Philadelphia av., Egg Harbor
Frank, Perry, 227 Philadelphia av., Egg Harbor
Goldstein, Samuel, 34 E. Main st., Mays Landing
Gordon, Benjamin L., 6917 Atlantic av., Ventnor
Gordon, Maurice B., 6917 Atlantic av., Ventnor
Gorson, Samuel F., 2005 Pacific av., Atlantic City
Gottlieb, Morris, 1616 Pacific av., Atlantic City
Green, Martin, 2643 Pacific av., Atlantic City
Grier, Robt. M., 50 E. Washington av., Pleasantville
Gross, Max, 7401 Atlantic av., Margate City
Gruhler, Jean A., 1616 Pacific av., Atlantic City
Guion, Edward, 1219 S. Main st., Pleasantville
Halpern, Samuel, 7405 Ventnor av., Margate City
Hamburger, Werner, 1616 Pacific av., Atlantic City
Harley, Halvor L., 101 S. Indiana av., Atlantic City
Harley, Robison D., 101 S. Indiana av., Atlantic City
Harris, William O., 32 N. New Jersey av., Atl. City
Hersohn, William W., 20 S. Elberon av., Atl. City
Hess, L. Elmore, 19 E. Bolton av., Absecon
Hoffman, Harry S., 3302 Pacific av., Atlantic City
Holmes, H. David, 15 N. Indiana av., Atlantic City
Holoman, M. Browne, 1 N. Haverford av., Marg'te C.
Hudson, Howard S., 824 Wesley av., Ocean City
Hughes, James W., Jr., 1903 Pacific av., Atlantic C'y
Hyman, Charles, 2807 Pacific av., Atlantic City
Infield, Gerald L., 1319 Shore rd., Northfield
Jacobson, J. Joseph, 1616 Pacific av., Atlantic City
Johnson, V. Earl, 101 S. Indiana av., Atlantic City
Kahn, Leo, 32 States av., Atlantic City
Kaighn, Chas. B., 101 S. Indiana av., Atlantic City
Kaman, Samuel L., 1616 Pacific av., Atlantic City
Kline, Herman, 2643 Pacific av., Atlantic City
Konzelmann, Frank W., 304 S. Shore rd., Absecon
Krechmer, Abraham, 400 Pacific av., Atlantic City
Lawther, Boyd M., 1401 Shore rd., Northfield
Leonard, Isaac E., 2842 Atlantic av., Atlantic City
Leonard, Isaac E., Jr., 2842 Atlantic av., AtlanticC'y
Lippman, Nathan L., 504 Pacific av., Atlantic City
Lucas, Stanley L., 44 N. Kentucky av., Atlantic City
Magill, Marcus, 4116 Ventnor av., Atlantic City
Major, Morton M., 4212 Ventnor av., Atlantic City
Marshall, H. Donald, 707 N. Indiana av., AtlanticC'y
Marvel, Peter H., 2216 Shore rd., Northfield
Mason, James H., 1616 Pacific av., Atlantic City
McCracken, Josiah C., Jr., 16 S. Suffolk av., Ventnor
McGahn, Joseph, 18 S. Stenton pl., Atlantic City
McGeehan, Stanley M., 6505 Atlantic av., Ventnor
Merendino, Anthony G., 2720 Pacific av., AtlanticC'y
MeVay, James C. F., 2907 Pacific av., Atlantic City
Milano, Cesare A., 1 S. Brighton av., Atlantic City
Mishler, Jay E., 1616 Pacific av., Atlantic City
Molitch, Matthew, 705 Pacific av., Atlantic City
Murray, Clifford K., 5901 Ventnor av., Ventnor
Nickman, E. Harrison, 1616 Pacific av., Atlantic C'y
Paul, Abraham, 4901 Atlantic av., Ventnor
Pennington, John, 101 S. Indiana av., Atlantic City
Perez, John F., 3403 Pacific av., Atlantic City
Pilkington, Albert, 117 S. Virginia av., Atlantic City
Powell, Robert J., 410 N. Ohio av., Atlantic City
Quinn, Norman J., 3303 Pacific av., Atlantic City
Read, Hilton S., 5407 Atlantic av., Ventnor
Reinhard, Louis, 2627 Pacific av., Atlantic City
Reyner, Daniel C., 2703 Pacific av., Atlantic City
Rieck, Allan, 507 S. Shore rd., Pleasantville
Rise, Wilson S., 1616 Pacific av., Atlantic City
Rodl, Louis M., 412 Bellevue av., Hammonton

Roop, William O., 522 S. Shore rd., Absecon
Rosenberg, Louis, 1616 Pacific av., Atlantic City
Rosenblatt, Sidney, 1904 Pacific av., Atlantic City
Rubba, Russell R., 21 Horton st., Hammonton
Ruby, Victor M., 325 Atlantic av., Atlantic City
Salasin, Samuel L., 511 Pacific av., Atlantic City
Saseen, Charles A., 60 S. Delancey pl., Atlantic City
Scanlan, D. Ward, 15 S. Illinois av., Atlantic City
Schwarzkopf, George C., 2901 Pacific av., AtlanticC'y
Shavelson, Irving C., 1616 Pacific av., Atlantic City
Shenfeld, Isaac, 4806 Atlantic av., Ventnor
Shivers, Chas. H. deT., 121 S. Illinois av., Atl. City
Shuster, Samuel A., 405 Pacific av., Atlantic City
Sinderbrand, Robert E., 344 Phila. av., Egg Harbor
Sinkinson, Chas. D., Jr., 1616 Pacific av., AtlanticC'y
Stamps, G. Ruffin, 1616 Pacific av., Atlantic City
Stewart, Sloan G., 43 S. North Carolina av., Atl. City
Stewart, Walter B., 8 N. Tallahassee av., Atl. City
Subin, Harry, 2 S. Somerset av., Ventnor
Surran, Carl A., 1616 Pacific av., Atlantic City
Targan, Nathan, 27 N. Connecticut av., Atlantic City
Timberlake, Baxter H., 5414 Ventnor av., Ventnor
Uzzell, Edward F., 2703 Pacific av., Atlantic City
Vandenberg, Werner, 7 S. La Clede pl., Atlantic City
Walker, Levi M., 5407 Atlantic av., Ventnor
Weeks, Belford A., 534 South Shore rd., Absecon
Weiner, Samuel E., 904 Pacific av., Atlantic City
Weintrob, Joseph R., 1616 Pacific av., Atlantic City
Westney, F. Rolfe, 1920 Pacific av., Atlantic City
Whims, Clarence B., 5407 Atlantic av., Ventnor
White, R. Rostin, 644 Shore rd., Somers Point
Wilson, Lawrence A., 114 N. Shore rd., Absecon
Winn, Samuel L., 1616 Pacific av., Atlantic City
Woolbert, Edwin, 15 W. Washington av., Pleas'tv'le

ASSOCIATE MEMBERS

Axilrod, Herbert D., 107 Warren st., Hamden, Conn.
Bowen, John R., Jr., 206 E. Verona av., Pleasantville
Cameron, Joseph H., 720 Shore rd., Somers Point
Erskine, Frederick A., Veterans Hospital, Oteen,N.C.
Gleason, James F., 5407 Atlantic av., Ventnor
Goldman, Louis C., 6 N. Austin av., Ventnor
Goodman, Harry P., 101 S. Indiana av., Atlantic City
Holland, John W., 45 Haverford av., Margate
Kearney, Hugh, 323 N. Main st., Pleasantville
Mason, James H., IV, 1616 Pacific av., Atlantic City
Mattioli, Eli D., Landisville
Ritter, Morton D., 1616 Pacific av., Atlantic City
Rosen, Samuel C., 117 Dewey pl., Atlantic City

COURTESY MEMBERS

Barab, Barney M., D.D.S., Atlantic City
Berger, A. E., D. C., Atlantic City
Jonas, Charles S., D.D.S., Atlantic City
Mally, Manuel J., D.D.S., Atlantic City
Martucci, Paschal C., D.C., Atlantic City
Rechtman, A. M., Philadelphia, Pa.
Starkes, Col. Carlton C., Linwood
Steigerwald, Clarence S., D. C., Ventnor

HONORARY MEMBERS

Altman, Hon. Joseph, Atlantic City
Brown, Hon. W. Elmer, Atlantic City
Farley, Hon. Frank S., Atlantic City
Fraser, Hon. James E., Mays Landing
Marcus, Joseph H., Los Angeles, Calif.
Martin, E., Atlantic City
Salsburg, Hon. Paul M., Atlantic City

BERGEN COUNTY (2)

Society organized February 28, 1854. Meets on second Tuesday of each month, except July and August. Annual Meeting in May.

ACTIVE MEMBERS

Abarbanel, Milton G., 301 Rochelle av., Rochelle Pk.
Abbott, Charles C., 32 Main st., Lodi
Agayoff, John D., 127 S. Washington av., Bergenf'd
Alessl, Alfred A., 174 Merrison st., Teaneck
Alexander, Samuel, 108 Pascack rd., Park Ridge
Alexander, Stewart F., 108 Pascack rd., Park Ridge
Anderson, Ethelyn J. C., 195 Euclid av., Ridgefield P.
Anderson, Reuben M., 15 Anderson st., Hackensack
Andrick, Eugene A., 99 Sheridan av., Hohokus
Angioletti, Louis V., 1617 Palisade av., Fort Lee
Appold, George D., 60 E. Church st., Bergenfield
Baldwin, John F., 58 Ayers ct., West Englewood
Balze, Henry R., 218 Broad av., Leonia
Banta, Raymond E., 288 Orchard pl., Ridgewood
Barbash, Roslyn H. W., 835 Red rd., Teaneck
Barlow, G. Barton, 157 Engle st., Englewood
Barnes, William J., 155 Engle st., Englewood
Baron, Herbert A., 150 Terrace av., Hasbrouck Hts.
Basrallan, Joseph B., 333 Wash'gt'n pl., Hasbr'k Hts.
Bassett, Samuel, 355 Washington av., Dumont
Bayer, Eric C., 307 E. Madison av., Dumont
Bednarz, Stephen, 219 Maple av., Wallington
Beres, Albert J., 189 A Valley Blvd., Wood-Ridge
Berke, Raynold N., 430 Union st., Hackensack
Berkow, Abraham, 417 Main st., Hackensack
Blauvelt-Wells, Grace B., 76 Heights rd., Ridgew'd
Blenkle, Victor A., 140 Chadwick rd., Teaneck
Bonanno, Peter J., 226 Engle st., Englewood
Bono, Joseph J., 631 Anderson av., Cliffside Park
Bookstaver, Barnet S., 241 Cedar lane, Teaneck
Bosch, Taeke, 290 E. Franklin Turnpike, Hohokus
Braun, Joseph C., 531 Broad av., Palisades Park
Bregman, Alexander, 2 Dempsey av., Edgewater
Brennan, Ralph J., 301 Plaza rd., Fair Lawn
Brescia, James, 7 E. Franklin Turnpike, Waldwick
Brown, John L., 1019 Cumbermede rd., Palisade
Buckley, Paul J., 159 Palisade av., Bogota
Bump, Samuel C., 505 E. Ridgewood av., Ridgewood
Burnham, Lyman, 229 Engle st., Englewood
Burns, Geoffrey C. H., County rd., Demarest
Burokus, William, 21 E. Pleasant av., Maywood
Busicco, Philip S., 131 Liberty rd., Englewood
Calabrese, D. John, 114 Rochelle av., Rochelle Park
Calabrese, Dino, 1022 Anderson av., Palisade
Caldwell, George W., 81 E. Clinton av., Tenafly
Campbell, Charles P., 397 Prospect av., Hackensack
Campbell, James M., 101 S. Central av., Ramsey
Candio, Vincent P., 366 Ridge rd., Lyndhurst

Carbone, Ralph, 2431 Lemoine av., Coytesville
Carroll, Thomas R., 754 Anderson av., Grantwood
Cartnick, Louis C., 228 Hillcrest av., Wood-Ridge
Caruso, Paul F., 194 Montross av., Rutherford
Catania, Joseph P., 140 Passaic st., Garfield
Catanzaro, Vincent J., 316 Midland av., Garfield
Catapano, John, 21 Hazelton st., Ridgefield Park
Chase, Kalman, Jr., 80 Sheridan av., Hohokus
Clarie, D'Arcy C., 558 Broad av., Ridgefield
Clark, Margaret A., Glen rd., Woodcliff Lake
Cloud, Albert W., 139 Hugenot av., Englewood
Connor, Clarence A., 1586 Center av., Fort Lee
Corn, David, 541 Queen Anne rd., Teaneck
Costabile, Vincent, 324 Second av., Lyndhurst
Coughlin, Joseph J., 396 Union st., Hackensack
Crandall, John K., 200 Main st., Fort Lee
Cropsey, Charles D., 168 Chestnut st., Rutherford
Curtis, Donald A., 241 Union st., Hackensack
D'Agostin, Henry, 243 Fulton ter., Cliffside Park
Dallio, Salvatore V., 463 Passaic av., Lodi
Daly, John F., 877 Queen Anne rd., Teaneck
D'Amato, Charles R., 324 Hoboken rd., E. Rutherford
Dana, Edward, 163 Prospect av., Hackensack
Davis, Harold, 170 S. Washington av., Bergenfield
Dayton, Spencer T., 86 W. Demarest av., Englewood
DeBiaso, Cornelius V., 9 W. Park pl., Rutherford
DeCecio, Thomas, 691 Palisade av., Cliffside Park
Decker, John G., 143 Terrace av., Hasbrouck Hts.
Delafrange, Kenneth M., 96 Washington av.,Westw'd
DeLuca, Louis, 323 E. Ridgewood av., Ridgewood
DeSanto, Anthony M., 377 Essex st., Hackensack
Deuell, William D., 190 Elm av., Hackensack
Dezer, Charles N., Jr., 210 Main st., Hackensack
Dickson, John D., 202 Larch av., Bogota
Dolan, Gerald J., 118 Broadway, Hillsdale
Doyle, George F., 80 Glenwood rd., Englewood
Dresner, Evelyn E., 190 Park st., Ridgefield Park
Drews, Francis F., Jr., 530 Broad av., Englewood
Driggs, Marshall F., 242 Engle st., Englewood
Drucker, Victor, 786 Palisade av., Teaneck
Dul, Emil J., 154 Plauderville av., Garfield
Edgerly, Sherburn E., 220 Engle av., Englewood
Edwards, J. Bennett, 144 Woodridge pl., Leonia
Ellmers, Basil J., 304 Milford av., New Milford
Essertier, Edward P., 275 State st., Hackensack
Essertier, Harland C., 263 Franklin av., Ridgewood
Evans, J. Lawrence, Jr., 254 Christie Hgts. st., Leonia
Farr, Walter J., 955 Queen Anne rd., Teaneck
Fechner, Fred J., 846 Garrison av., Teaneck
Fechner, Herta, 846 Garrison av., Teaneck
Fermaglich, Harry B., 881 Garrison av., Teaneck
Ferrante, Joseph, 803 Prospect av., Ridgefield
Ferrari, Andrew F., 196 Main st., E. Rutherford
Fietti, Vincent G., 112 Ridge rd., Lyndhurst
Finke, George W., 237 State st., Hackensack
Finke, John H. D., 19 Hudson st., Hackensack
Fioretti, Ralph J., 315 Rochelle av., Rochelle Park
Fitzhugh, William F., 190 Euclid av., Ridgefield Park
Fitzpatrick, Leo J., 541 Churchill rd., West Englew'd
Fliegel, William M., 85 W. Passaic st., Maywood
Forte, F. Chester, 374 Park st., Hackensack
Freeland, Frank, 39 Catalpa av., Hackensack
Friedman, Abraham I., 405 State st., Hackensack
Friery, John F., 297 S. Washington av., Bergenfield
Gatti, Joseph D., 92 E. Hunter av., Maywood
Gershman, Joseph G., 185 E. Madison av., Dumont
Gilady, Raphael, 205 Union st., Hackensack
Giordano, William C., 948 Maple av., Ridgefield
Gittelsohn, Isador, 700 Kinderkamack rd., River Ed.
Gitterman, David A., 519 Engle st., Englewood
Glick, Bernard, 307 Stuyvesant av., Lyndhurst
Goldberg, David, 336 Westwood av., Westwood
Goldfarb, Abraham, 52 Chestnut st., Rutherford
Gordon, Sarah, 327 Cedar lane, Teaneck
Gorman, Robert B., 410 Kinderkamack rd., Oradell
Gould, Werner, 219 Passaic st., Hackensack
Grant, Russell B., 100 Prospect av., Hackensack
Greenfield, Arthur W., 50 Anderson st., Hackensack
Greenfield, William J., 50 Anderson st., Hackensack
Grimes, Robert R., 134 Bergen av., Ridgefield Park
Groff, Parker A., 159 Washington av., Little Ferry
Gross, Robert J., 202 Pavonia av., Jersey City
Grueninger, Edward F., 411 Cedar Lane, Teaneck
Guidice, Vincent W., Harrison av., Waldwick
Hagovsky, Albert J., 301 Hackensack st., Carlstadt
Halpern, Herman, 143 Engle st., Englewood
Harryman, William K., 271 Union st., Hackensack
Hawes, Vernon L., 63 Church st., Ramsey
Helff, Joseph R., 1367 Teaneck rd., W. Englewood
Heller, George, 460 Engle st., Englewood
Hensle, Otto S., 210 Main st., Hackensack
Hillsman, R. Bryan, 681 Queen Anne rd., Teaneck
Hirsch, John J., 191 Wallington av., Wallington
Hitzemann, Louis A., 35 Pangborn pl., Hackensack
Hoops, Harold J., 25 Woodland Park dr., Tenafly
Horowitz, Herman J., 872 Broad av., Morsemere
Hull, Donald B., 88 W. Ridgewood av., Ridgewood
Hunziker, George P., 435 Warwick av., W. Englew'd
Irwin, John H., 242 Engle st., Englewood
Irwin, Robert C., 541 Page av., Lyndhurst
Jacobitti, Edmund E., 491 Maywood av., Maywood
Jaslow, Seymour P., Godwin av., Wyckoff
Jenkins, Alvah R., 40 Armory st., Englewood
Johnson, G. Leonard, 390 Booth av., Englewood
Johnson, Winton H., 210 Main st., Hackensack
Jordan, Walter L., 145 Engle st., Englewood
Jukofsky, Isidore D., 335 Main st., Ridgefield Park
Kadisch, Ernst L., 120 Second av., Westwood
Kakascik, Emil J., 206 Palisade av., Garfield
Kanninger, Frederick A., 57 W. Allendale av.,Allend'e
Kaplan, Isaac, 901 Garrison av., Teaneck
Kastler, Franz, 54 Ames av., Rutherford
Keir, Floyd E., 308 Engle st., Englewood
Kelley, Charles B. P., 336 Engle st., Tenafly
Kennedy, Paul A., 147 Tenafly rd., Englewood
Kingma, John G., Goffle Hill rd., Wyckoff
Kissinger, Donald J., 315 Engle st., Tenafly
Klosterman, Julius A., 335 River rd., Bogota
Knapp, Richard E., 25 Hudson st., Hackensack
Knight, William T., 210 Main st., Hackensack
Knowles, George M., 403 Prospect av., Hackensack
Knox, Charles A., 138 Bergen av., Ridgefield Park
Knox, Harriet L., 390 Union st., Hackensack
Kraissl, Cornellus J., 230 Kinderkam'k rd., Hack'ns'k
Kristal, John, 292 Main st., Hackensack
Krudener, Robert D., 230 Fulton ter., Cliffside Park
LaBarba, Peter J., 163 Washington pl., Hasbr'k Hts.
Lamberto, Vito A., 422 Stuyvesant av., Lyndhurst
Latona, Joseph A., 78 Main st., Lodi
Law, Harrison E., 397 Prospect av., Hackensack
Legato, Samuel F., 432 Pallsade av., Cliffside Park
Lemmerz, Willard H., 135 Hackens'k st.,Wood-Ridge
Lesko, Stephen W., 234 Mt. Pleasant av., E. Ruth'f'd
Levitas, George M., 199 Fairview av., Westwood
Levitas, Irving M., 199 Fairview av., Westwood
Levy, Jack D., 191 Union st., Hackensack
Lewis, Alice B., 1 Gilbert rd., Hohokus
Lichtenberg, Walter, 309 Kinderkamack rd.,Westw'd
Little, Rufus R., Bergen Pines Hospital, Oradell
Littwin, Charles, 950 Queen Anne rd., Teaneck
Liva, Paul F., 280 Stuyvesant av., Lyndhurst
Liva, Vinicio G., 280 Stuyvesant av., Lyndhurst
Loman, Samuel G., 139 Jefferson av., Cresskill
Lombardi, Frank L., 25 E. Clinton av., Bergenfield
Lord, C. Donald, 76 W. Ridgewood av., Ridgewood
Lowe, Louise, 370 State st., Hackensack
Lueddecke, Roland E., 216 Randolph av., E.Rutherf'd
Lurla, Sanford A., 249 Queen Anne rd., Bogota
Lynch, Maurice M., 46 Anderson st., Hackensack
Lyons, Romola L. K., 171 Meadowbr'k rd., Englewood

Macaulay, Francis A., 819 Elm av., Teaneck
MacKellar, James M., 26 E. Clinton av., Tenafly
Maddren, Russell F., 372 Union st., Hackensack
Mader, A. Ivan, Jr., 430 Union st., Hackensack
Magee, William P., 1009 Abbott blvd., Palisade
Mancene, Edward M., 225 Main st., Little Ferry
Mark, Harold I., 1022 Garrison av., Teaneck
Markley, Luther A., Holy Name Hosp., Teaneck
Marx, Frederick J., 539 Kinderkam'k rd.,River Edge
Mason, Stuart A., 756 E. Ridgewood av., Ridgewood
McCormack, Frank C., 95 Tenafly rd., Englewood
McFeely, Percy R., 242 Palisade av., Bogota
McGee, Hugh E., 117 Cedar Lane, Teaneck
McGuire, Joseph T., 54 Main st., Lodi
McIlveen, Marion, 260 Godwin av., Ridgewood
McLane, A. Donald, 498 Engle st., Englewood
McLeod, Harry J., 71 Forest rd., Tenafly
McWhorter, John E., 115 Grand av., Englewood
Mears, William G., 216 Hillside av., Leonia
Megibow, Harold J., 82 W. Main st., Ramsey
Metz, Henry, 445 Prospect av., Hackensack
Meyer, Howard M., 400 Maple Hill dr., Hackensack
Mockett, Walter W., 55 E. Magnolia av., Maywood
Modrys, Walter F., 1400 Palisade plaza, Hudson Hts.
Mores, Herbert R., 321 Union st., Hackensack
Morrow, Joseph R., 45 N. Broad st., Ridgewood
Moss, Jack W., Maple av., Wyckoff
Muller, Frederick L., 511 Broad st., Carlstadt
Mulligan, Luke A., 230 Fort Lee rd., Leonia
Myers, Norman V., 134 Magnolia av., Tenafly
Naclerio, Amedeo, 207 Hackensack st., Wood-Ridge
Nemiroff, Nathan, 348 Kinderkamack rd., Oradell
Netz, Lester W., 210 Main st., Hackensack
Neville, Robert J., 547 Main st., Hackensack
Newmann, Monroe E., 24 W. Salem st., Hackensack
Nicol, Lorenz C., 360 Larch av., Bogota
Olpp, John L., 49 Ivy lane, Tenafly
Olson, Vendela E., 100 Prospect av., Hackensack
Oren, Hyman, 74 Perry st., Park Ridge
Padden, Aloysius F., 335 Orchard ter., Bogota
Pagano, Peter, 324 Franklin av., Ridgewood
Palazzo, William L., Holy Name Hosp., Teaneck
Pallen, Conde deS., 6 Passaic st., Rochelle Park
Patti, Frank A., 241 Broad av., Leonia
Pedevill, Joseph R., 232 Highland av., Palisades Park
Pellegrini, Vincent J., 315 Rochelle av.,Rochelle P'k
Persico, Anthony, Columbus av., Harrington Park
Pettit, Harry H., 138 Franklin av., Ridgewood
Phillips, Walter, 109 E. Palisade av., Englewood
Pindar, Arthur W., 627 Queen Anne rd., Teaneck
Pindar, Irene D., 164 Selvage av., West Englewood
Pindar, William A., Jr., 59 Bradley av., Bergenfield
Policastro, Nelson C., 378 Union st., Hackensack
Pollack, Roy, 715 Palisade av., Cliffside Park
Prather, Charles G., 25 Westwood av., Westwood
Prather, John W., 155 Washington av., Dumont
Protzman, Thomas B., 314 Engle st., Englewood
Rader-Hoheb, Katherine, 5 Lincoln av., Rutherford
Rappaport, Doris I., 1363 Sussex rd., W. Englewood
Re, Natale M., 1003 Dearborn rd., Palisade
Reich, Samuel B., 286 Union st., Hackensack
Reid, Erwin W., 125 Marsellus pl., Garfield
Reinhold, H. E., 441 W. Englewood av., W.Englewood
Reitnauer, John S., 6 Standish ct., Tenafly
Rhodes, Harry, Jr., 171 Terrace av., Hasbrouck Hts.
Richards, Ernest W., 374 DeWolf pl., Hackensack
Richardson, Charles A., Closter Dock rd., Closter
Ringewald, Robert H., 284 Broad av., Leonia
Roberts, Charles D., 188 Sherwood pl., Englewood
Romano, Anthony M., 159 Westervelt av., Tenafly
Ross, Bernard, 30 E. Passaic st., Maywood
Roth, Daniel B., 836 Garrison av., Teaneck
Rowohlt, George O., 150 E. Madison av., Dumont
Roylance, F. Dean, Jr., St. Nicholas av., Haworth
Rube, Joseph A., 145 Prospect st., Ridgewood
Rucker, William C., 408 Main st., Hackensack
Ruoff, Andrew C., III, 24 Cleveland av., Rivervale
Rusin, Michael, 81 Monroe st., Garfield
Ryley, Harold W., 1 Lincoln pl., E. Rutherford
Salva, Edo J., 17 W. Central blvd., Palisades Park
Sandler, Moses, 2013 Center av., Fort Lee
Sandler, Samuel A., 254 Union st., Hackensack
Sarajian, Aram M., 88 W. Forest av., W. Englewood
Sarla, Michael, 55 Hudson st., Hackensack
Schaberg, Frank J., 263 Anderson st., Hackensack
Scheer, Eli, 885 Queen Anne rd., Teaneck
Schiro, S. Robert, 73 Main st., Lodi
Schmidt, Walter W., 386 Palisade av., Cliffside Park
Schretzmann,Rudolph C.,1289 Traf'g'r st.,W.Eng'w'd
Schultz, Leo P., 232 Franklin Tnp., Allendale
Schwartz, Leon J., 88 Park av., Rutherford
Scullion, Arthur A., 460 Anderson av., Cliffside Park
Sealey, Henry J., 79 Washington av., Dumont
Segard, Christian P., 204 Glenwood av., Leonia
Seidel, Reginald F., 164 Maple st., Englewood
Seiler, Benjamin, 580 Palisade av., Cliffside Park
Sexton, Edward V., 936 Queen Anne rd., Teaneck
Seymour, Edward T., 55 Hillside av., Tenafly
Sharlin, Herbert S., 301 Union st., Hackensack
Siegel, Simeon, 167 Washington av., Dumont
Silverman, Mendel, 84 Park av., Rutherford
Singer, Marie J., 139 E. Madison av., Dumont
Sklar, S. Harvey, 647 Anderson av., Cliffside Park
Skvarla, John A., 17 Koster st., Wallington
Slabey, Evelyne L., 817 Abbott Blvd., Palisade
Sloane, Milton B., 128 W. Hudson av., Englewood
Smith, Bryan A., 10 N. Monroe st., Ridgewood
Smith, Nehemiah E., 29 Bennett rd., Englewood
Snedecor, Spencer T., 210 Main st., Hackensack
Solworth, Lee, 308 Engle st., Englewood
Somers, Williard H., 157 Engle st., Englewood
Sosnow, Louis M., 51 Central av., Hillsdale
Sperber, Thomas J., 714 Cedar lane, Teaneck
Spicola, Louis A., 294 Union st., Lodi
Spiegelglass, Abraham B., 417 Main st., Hackensack
Spranz, William S., 546 Oradell av., Oradell
Stein, Frederick, 620 Ridge rd., Lyndhurst
Steneck, Gustav G., 275 River rd., Bogota
Stokes, Gordon D., 88 W. Ridgewood av., Ridgew'd
Sullivan, John A., 764 Queen Anne rd., Teaneck
Susinno, Anthony M., 29 Roff av., Palisades Park
Szot, Alexander, 747 Ridge rd., Lyndhurst
Tennis, Edgar M., 375 Engle st., Englewood
terKuile, Reinold W., 88 W. Ridgewood av.,Ridgew'd
Tether, Russell K., Main st., Closter
Toscano, George A., 364 Park st., Hackensack
Vanderbeek, Stuart W., 143 Engle st., Englewood
Vanderslius, Harold H., 40 Pascack rd., Park Ridge
Vann, Dorothea D., 179 Hillside av., Englewood
Vann, Felix H., 179 Hillside av., Englewood
Van Riper, William D., 441W.Eng'w'd av.,W.Eng'w'd
Van Winkle, Charles I., 79 Ridge rd., Rutherford
Vargish, Hildegard S., 268 Kinderk'm'k rd.,N.H'k's'k
Vargish, Jacob, 268 Kinderkamack rd., N. Hackens'k
Verdon, Robert E., 682 Anderson av., Cliffside
Vita, Frank J., 695 Palisade av., Cliffside
Vroom, William L., 88 W. Ridgewood av., Ridgewood
Walker, Nelson C., 261 Summit av., Hackensack
Ward, Mary, 30 Engle st., Tenafly
Warren, Charles B., 181 Prospect av., Bergenfield
Weiss, Abram, 509 Warwick av., West Englewood
Weiss, Samuel A., 786 Palisade av., Teaneck
White, Frank S., 916 Red rd., Teaneck
Whitman, Lloyd B., 7 W. Clinton av., Bergenfield
Widetsky, Alfred, 85 Broadway, East Paterson
Williams, Edith B., 70 Anderson st., Hackensack
Williams, William C., 9 Ridge rd., Rutherford
Willis, Benedict P., 185 Montross av., Rutherford
Wilson, Harrison B., 430 Union st., Hackensack
Winter, Gladys C., 790 Grange rd., Teaneck

Witkoff, Ben., 215 Terrace av., Hasbrouck Heights
Wolfe, Edward E., 895 Queen Anne rd., Teaneck
Wollack, Alfred, 74 Perry st., Park Ridge
Wolowitz, Harry B., 20 Spring Valley av., Hack'ns'k
Worcester, George F., 220 Engle st., Englewood
Worcester, John T., 220 Engle st., Englewood
Wren, James C., Main st., Closter
Wry, Orlin V., 95 High st., E. Rutherford
York, James L., 331 River rd., New Milford

ASSOCIATE MEMBERS

Blackman, Sadie, 12 Roosevelt av., Westwood
Brunhofer, Andrew, 714 Cedar lane, Teaneck
Carman, Henry E., 37 Selvage av., West Englewood
Casser, Leonard, 85 Margie av., Cresskill
Cole, Harold S., 19 Donaldson av., Rutherford
Cuddihy, Kathleen, 2023 Center av., Fort Lee
Feldman, Matthew, 120 Bogart rd., N. Hackensack
Friedland, Walter, 210 Main st., Hackensack
Hoffman, George A., 234 Fort Lee rd., Leonia
Kemezis, Vitas, Closter Dock rd., Closter
Kley, Edward A., 199 Dorchester rd., River Edge
Kosovsky, Harry, 26 Sheffield av., Englewood
McAuliffe, Vincent, 910 Queen Anne rd., Teaneck
Mersch, Marcel A., 680 Broad av., Ridgefield
Minck, Peter, Jr., E. Saddle River rd., Saddle River
Rosenbauer, Howard J., 120 Clinton pl., Hackensack
Rosner, Francis, 653 Maywood av., Maywood
Williams, William E., 9 Ridge rd., Rutherford

COURTESY MEMBERS

Burton-Opitz, Russell, Palisade
Carey, Benjamin W., Westwood
Coca-Fernandez, Arthur, Oradell
Denison, Ward C., Ridgewood
Franklin, Sidney, Youngstown, Ohio
Hardy, Stanton M., Montvale
Harreys, Charles W., Ridgewood
Lewin, Michael L., Tenafly
Otvos, Emery G., Palisade
Salter, Kent, Paterson
Twinem, Francis P. Hackensack
Vance, Maude V., Palisade

HONORARY MEMBERS

Burbank, Hugh E., Lyndhurst
Hallett, Frederick S., Hackensack
Proctor, James W., Tenafly
Robinson, Silas E., Waldwick
Tidwell, George W., Rutherford

EMERITUS MEMBERS

Van Dyke, Joseph S., Palisades Park
Whittaker, Neil M., Teaneck

BURLINGTON COUNTY (3)

Society organized May 19, 1829. Regular meetings on second Thursday evening of each month except June, July and August, at Riverton Country Club, Riverton. Annual Meeting in May.

ACTIVE MEMBERS

Boudwin, Norman K., 64 Church st., Beverly
Buckley, Richard T., Jr., 111 E. Main st.,Maple Shade
Busansky, Samuel T., Trenton rd., Browns Mills
Curtis, Howard C., 224 E. Main st., Moorestown
Davis, Jacob M., 1400 High st., Burlington
Dickson, T. Bruce, 408 Main st., Riverton
Elwell, Alfred M., Jr., 149 E. Main st., Moorestown
Fahrenbruch, Fred'k D., 101 Garden st., Mt. Holly
Haldeman, Robert E., 34 Garden st., Mt. Holly
Hebble, Howard M., 320 Chester av., Moorestown
Landis, Harry P., Jr., 901 Columbia av., Palmyra
Lucas, W. Fred, 23 W. Broad st., Burlington
MacNeal, Perry S., 417 Chester av., Moorestown
Mark, Harry B., 600 Elm ter., Riverton
Metzer, Freeman W., 428 Fairview st., Riverside
Mulford, William P., 202 Warren st., Beverly
Robbins, Morris A., 39 W. Main st., Columbus
Rodman, E. Warren, 503 Cooper st., Beverly
Schaeffer, Alan M., 229 Willow st., Delanco
Sparks, Paul R., 102 W. Broad st., Burlington
Tracy, George T., 222 Warren st., Beverly
Ulmer, D. H. Bartine, 199 Chestnut st., Moorestown
Viteri, Luis E., 214 Main st., Mt. Holly
Voss, John C., 634 Thomas av., Riverton
Wescoat, George N. A., 202 W. Main st., Moorestown

CAMDEN COUNTY (4)

Society organized August 14, 1846. Meets first Tuesday in each month, October to May, inclusive, with an outing in June. Annual Meeting in May.

ACTIVE MEMBERS

Anderson, Merton B., 727 Walnut st., Camden
Andrus, David L., 805 Cooper st., Camden
Asbell, Nathan, 326 Cooper st., Camden
Assante, M. Hugo, 120 White Horse pk., Clementon
Athey, Kenneth L., 3616 Westfield av., Camden
Baker, Banks S., 618 Benson st., Camden
Baker, Maurice E., 1149 Kaighn av., Camden
Barb, Kirk B., 1303 Princess av., Camden
Barnshaw, Harold D., 406 Cooper st., Camden
Barroway, James N., 2714 Westfield av., Camden

Becker, C. Frederick, 620 Benson st., Camden
Beideman, Casper M., 5 W. Maple av., Merchantville
Bekampis, Eugene H., 315 E. Maple av., Merchantv'e
Bernell, Stanley P., 1207 Haddon av., Camden
Betancourt, Raul R., 406 Cooper st., Camden
Bianco, John J., 523 Cooper st., Camden
Bibighaus, Warren Y., 313 4th av., Haddon Heights
Bowen, Robert N., 419 Cooper st., Camden
Boysen, Otto T., 2704 Westfield av., Camden
Braun, William, 406 Cooper st., Camden
Breme, Julius C., 523 Walnut av., Laurel Springs
Brennan, Charles L. S., 14 S. Broadway, Gloucester
Brennan, John P., 14 Church rd., Merchantville
Brown, Marcus, 2 White Horse Pike, Haddon Hts.
Brown, Stanley L., 517 Cooper st., Camden
Browning, Wm. J., 134 N. Centre st., Merchantville
Burns, Wilmer F., 267 White Horse Pike, Audubon
Bush, Ralph K., 23 E. Maple av., Merchantville
Butler, Samuel S., 1100 Kaighn av., Camden
Carlander, Oswald R., 130 N. Broadway, Camden
Casselman, Arthur J., 301 N. Second st., Camden
Cavalli, Ralph D., N. Y. Ship Corp., Camden
Chesnick, Reuben B., 290 W. Clinton av., Oaklyn
Clark, Ernest W., 414 Cooper st., Camden
Clark, Morris B., W. Pine and Atl. avs., Audubon
Cohen, Leon, 2424 Baird Blvd., Camden
Cohen, Paul, 500 State st., Camden
Collier, Martin H., 406 Cooper st., Camden
Conlen, Richard, 523 Haddon av., Camden
Connell, James, 337 Monmouth st., Gloucester
Cooper, Robert A., 7137 E. Park av.,PennsaukenTwp.
Coxson, Harold P., Laurel rd., Stratford
Crist, Walter A., 211 N. Fifth st., Camden
Cunningham, Joel B., 801 Cooper st., Camden
David, Leopold S., 326 Cooper st., Camden
Davis, Albert B., 511 Cooper st., Camden
Davis, J. Stannard, 55 Kings Highway, E.,Haddonf'd
Deibert, Irvin E., 538 Cooper st., Camden
Del Duca, Vincent P., 514 Cooper st., Camden
Denbo, Elic A., 596 Benson st., Camden
Dickensheets, Jas. G., 4405 Westfield av., Penns'k'n
Di Ielsi, Anthony J., 1013 S. 5th st., Camden
D'Imperio Francesco, 411 Cooper st., Camden
Driscoll, Charles D., 475 White Horse P.,W.Col'gsw'd
Drossner, Jacob L., 1300 Park Blvd., Camden
Durham, Frederick W., 20 Kings Hwy., W., H'dd'nf'd
Ebner, Paul G., 408 Overhill rd., Haddonfield
Ellis, Alexander, 519 Broadway, Camden
Ewing, Leslie H., 10 Broad st., Berlin
Eynon, Harold K., 538 Cooper st., Camden
Eynon, James R., 20 E. Knight av., Collingswood
Farrell, Edgar A. H., 26 Kings Highway,W.,H'd'nf'ld
Fessman, John W., 114 Clements Brg.rd.,Runnemede
Fidler, William L., III, Laurel rd., Stratford
Filkins, Cedric E., 412 White Horse Pike, Audubon
Frantz, Max K., 624 S. 5th st., Camden
Fridrich, Harry E., 4172 Federal st., Camden
Friedenberg, Sidney, 2990 Alabama rd., Camden
Gamon, Robert S., 514 Cooper st., Camden
Geissler, Elmer E., 327 Monmouth st., Gloucester
German, George B., 15 W. Walnut av.,Merchantville
Gilbert, Philip D., 514 Cooper st., Camden
Girardo, Anthony J., 22 Taunton av., Berlin
Gleason, Edwin A., 115 Wesley av., Erlton
Goldman, Samuel, 527 Cooper st., Camden
Goldstein, Hyman I., 1425 Broadway, Camden
Gordon, Milton H., 12 N. 27th st., Camden
Gosper, Ralph W., 5719 W'stf'd av., Penns'kenTwp.
Grenhart, George W., 714 Market st., Camden
Griffey, William C., 1049 Haddon av., Collingswood
Griscom, Lee E., 604 Broadway, Camden
Hadley, C. Frazer, 210 W. Maple av., Merchantville
Hadley, C. Frazer, Jr., 21 Haddon av., Westmont
Hager, George W., Jr., Camden Co. Hosp., Lakeland
Haines, Keith E., 300 Broadway, Camden
Haines, Mabel C. S., 600 White Horse Pike, Audubon
Halbeisen, William A., 511 Cooper st., Camden
Hallinger, Earl S., 517 Cooper st., Camden
Hammett, Lee J., 760 N. 27th st., Camden
Hanson, Alfred S., 33 Cuthbert blvd., Westmont
Harbeson, James P., III, 460 Loucraft rd., Haddonf'd
Hays, Roy G., 527 Haddon av., Collingswood
Hemphill, Everett H., 274 Kings H'way, E., Had'nf'd
Hessert, Edmund C., 417 Cooper st., Camden
Hirshorn, Arthur, 539 Monmouth st., Gloucester
Hollinshed, Beulah S., 600 Benson st., Camden
Howard, J. Edgar, 67 Kings H'way, W., Haddonf'd
Hughes, A. Joseph, 3rd & Cooper sts., Camden
Hughes, Frank J., 429 Cooper st., Camden
Hughes, Thomas E., 223 Cooper st., Camden
Hummel, Ernest G., 414 Cooper st., Camden
Husted, Gerald W., 306 Eighth av., Haddon Heights
Ironside, Paul A., 144 North dr., Haddonfield
Jack, H. Wesley, 538 Cooper st., Camden
Jackson, Charles H., 1250 Park Blvd., Camden
Johnson, Herbert F., 429 Cooper st., Camden
Jones, John C., 805 Princeton av., Camden
Judson, G. Vernon, Jr., 722 Redman av., Haddonfield
Kain, Thomas M., 403 Cooper st., Camden
Kaufman, Edgar W., 2225 River av., Camden
Kay, Albert E., 5 W. Chestnut av., Merchantville
Keller, Earl B., Jr., 604 White Horse Pike, Oaklyn
Kelly, Frank, 11 N. Johnson Blvd., Gloucester
Kennedy, George R., 517 Cooper st., Camden
Kerdasha, Richard F., Tuomey Hosp., Sumter, S. C.
Keyser, David, 1518 Baird av., Camden
Kimler, William D., 400 Collings av., Collingswood
Kinney, Albert G., 609 Clinton av., Haddonfield
Klarich, Philip, 512 Broadway, Camden
Kline, Oram R., 514 Cooper st., Camden
Klinger, John S., 1452 Mt. Ephraim av., Camden
Kutner, Charles, 211 N. Fifth st., Camden
Larossa, Ernest A., 561 Benson st., Camden
Lee, Benjamin F., 323 Mt. Vernon av., Haddonfield
Lee, Thomas B., 622 Cooper st., Camden
Lewis, Thomas K., 804 Wilson Bldg., Camden
Locke, Henrik W., 243 W. Main st., Moorestown
Lovett, Joseph C., Municipal Hospital, Camden
MacAlpine, Kenneth B., 500 Chews Ldg. rd.,Had'nf'd
Magee, Edward S., 201 White Horse Pike, Audubon
Magee, Russell S., 201 White Horse Pike, Audubon
Maldeis, Albertos M. K., 117 N. Sixth st., Camden
Manser, Ernest E., 321 Haddon av., Collingswood
Marcarian, Henry G., 917 Cooper st., Camden
McAfoos, Louis G., Jr., 608 Eldridge av.,W. Coll'gsw'd
McCallum, Arthur S., 213 Clements Br. rd., Bar'gt'n
McCarthy, Arthur M., 2772 Federal st., Camden
McConaghy, Thomas P., 10th & Cooper sts., Camden
McDermott, Vincent T., 509 State st., Camden
McGlade, Thomas H., 1225 Walnut ave., W.Col'gsw'd
McWilliams, Charles E., Church st., Blackwood
Mecray, Paul, Jr., 405 Cooper st., Camden
Mecray, Paul M., 405 Cooper st., Camden
Meyer, Eugene A., 427 Cooper st., Camden
Meyer, George P., 410 Haddon av., Camden
Milnamow, Paul, 538 Cooper st., Camden
Murray, Edwin N., 130 N. Broadway, Camden
Musulin, Nicholas R., 514 Cooper st., Camden
Newmeyer, Joseph, 47 S. 27th st., Camden
Ondovchak, M. Frederic, Kings H'way, Mt. Ephraim
Ornaf, I. Edward, 1145 Thurman st., Camden
Osborn, Edward G., 3194 Alabama rd., Camden
Palsley, Ellwood S., 501 White Horse Pk., Haddon H.
Palmisano, Vincent S., 13 W. 6th av., Runnemede
Phillips, Claude B., 885 Haddon av., Collingswood
Pike, Charles E., 4 E. Haddon av., Oaklyn
Pinsky, Harry A., 209 S. 6th st., Camden
Pinto, Joseph, 23 S. Oak av., Mt. Ephraim
Pratt, Arthur G., 516 Cooper st., Camden
Preis, Edwin E., 3300 Federal st., Camden

Price, Henry S., Jr., 150 Frazer av., Collingswood
Principato, Roberto, 402 Walnut st., Camden
Raban, Reginald J., 1185 Yorkship Square, Camden
Rapp, Robert F., 994 Haddon av., Collingswood
Read, William T., Jr., Cooper Hospital, Camden
Reilly, Joseph, 600 Newton av., Oaklyn
Repici, Anthony J., 212 Haddon av., Haddonfield
Rhone, David S., 1202 Haddon av., Camden
Riegert, Louis C., 808 Kings H'way, Haddon Hts.
Ristine, Edwin R., 300 Broadway, Camden
Roberts, Joseph E., Jr., 403 Cooper st., Camden
Roberts, Richard H., 53 Kings H'w'y, W., Haddonf'd
Rose, Francis L., 511 Cooper st., Camden
Rosenberg, Hyman, 318 Cooper st., Camden
Rosner, Edwin, 814 Haddon av., Collingswood
Rudolph, John P., 108 W. Maple av., Merchantville
Russell, Karl S., Taunton Blvd., Marlton
Russell, Marie E., 583 Haddon av., Collingswood
Ryan, Lawrence W. F., 922 Haddon av., Collingsw'd
Schall, Reuben E., Seventh & Elm sts., Camden
Scheffler, Wilhelm A. H., 511 Cooper st., Camden
Schellenger, Edward A. Y., 429 Cooper st., Camden
Schrack, Helen F., 216 N. Fifth st., Camden
Schwartz, Henry C., Raritan av., Atco
Seiberling, Joseph D., 225 Redman av., Haddonfield
Seto, Stanford P. T., Box 138, Blackwood
Shaen, Edward, 701 N. 6th st., Camden
Shafer, Albert H., 405 Cooper st., Camden
Shafer, F. William, 634 Penn st., Camden
Sharp, Reuben L., 719 Cooper st., Camden
Shaw, Ernest B., 811 Collings av., W. Collingswood
Shaw, Ned, 514 Cooper st., Camden
Sheaffer, Clinton P., 241 Kings H'way, E., Had'nf'd
Shemeley, William G., Jr., 7 Haddon av., Camden
Sherk, A. Lincoln, 2647 Westfield av., Camden
Shipman, James S., 514 Cooper st., Camden
Shipps, Hammell P., 719 Cooper st., Camden
Shope, Edward P., 130 N. Broadway, Camden
Shull, Elliott C., 517 Cooper st., Camden
Shuttleworth, John E., West Jersey Hosp., Camden
Sieber, Isaac G., 204 Merchant st., Audubon
Silberstein, Frederick H., 4711 Westfield av.,M'rc'tv'e
Skyer, Joseph, 3400 Federal st., Camden
Smith, Bertram H., 1000 Kings Highw'y,Hadd'nHts.
Snape, William J., 573 Stevens st., Camden
Sochacki, Alexander, 1478 Mt. Ephraim av., Camden
Stein, Joseph M., 5313 Sherwood ter., Merchantville
Stephenson, Daniel H., 500 Camden av., Moorestown
Stetser, Leland M., 416 Evans av., Haddonfield
Stone, Frank P., 234 Fairmount av., Laurel Springs
Storer, Alexander, Jr., 563 Haddon av., Collingswood
Straus, Frederick W., 2708 Westfield av., Camden
Sufrin, Emanuel, 1529 Wildwood av., Camden
Sullivan, Claude C., Jr., 111 Hemlock av.,LaurelSp'gs
Summerill, Garnett, 330 Cooper st., Camden
Swiecicki, Martin E., 9 Second av., Haddon Heights
Tatem, Henry R., Jr., Pine st.&Atlantic av.,Audubon
Thompson, P. H., 4612 W'stf'd av., Pennsauken Twp.
Traganza, Robert W., 428 Richey av., W.Collingsw'd
Tyler, Charles O., 134 Kings H'w'y, E., Haddonfield
von Deilen, Arthur W., 530 Cooper st., Camden
Warwick. Ralph A., 3300 Federal st., Camden
Waugh, Bascom S., 1882 S. 10th st., Camden
Weimann, Max L., 803 Station av., Haddon Heights
Weiner, Herman R., 527 Cooper st., Camden
Wiant, Herman E., 120 Windsor av., Haddonfield
Williams, William C., Black Horse Pk., Haddon Hts.
Winter, Carl M., 1518 Collings rd., Camden
Witkowski, Joseph L., 1450 Mt. Ephraim av., Camd'n
Wright, Ralph S., 517 Cooper st., Camden
Wroblewski, Benj. M., 1166 Thurman st., Camden

HONORARY MEMBERS

Clement, Lavinia B., Haddonfield
Eaton, Arthur T., Haddon Heights
Lovett, Joseph C., Camden
Pratt, William H., Camden
Richardson, Emma M., Camden
Rossell, Edward W., Colwick
Van Sciver, John E. L., Haddonfield

CAPE MAY COUNTY (5)

Society organized December 18, 1883. Eight regular meetings each year. Meets on fourth Tuesday, October to May inclusive. Semi-annual meeting in October. Annual Meeting in May.

ACTIVE MEMBERS

Barrows, Victor I., Lakeside Farm, Oxford, Maine
Bernheisel, Louis E., Marshallville rd., Tuckahoe
Brooks, George M., 18 N. Main st., Cape May Ct. H.
Cameron, C. Paul, 720 Shore rd., Somers Point
Cohen, Maurice B., 224 E. Wildwood av., Wildwood
Cooper, Jules, 723 Washington st., Woodbine
Cornwell, Robert A., 717 Wesley av., Ocean City
Crowe, Aldrich C., 735 Atlantic av., Ocean City
Cryder, Millard C., 109 Mechanic av., Cape M. Ct. H.
Dandois, George F., 220 E. Wildwood av., Wildwood
Doebele, William A., 1425 Wesley av., Ocean City
Eisenhower, J. S. D., 2704 Pacific av., Wildwood
Fath, Marcus A., 108 E. Glenwood av., Wildwood
Furey, Joseph A., 224 E. Wildwood av., Wildwood
Hauck, Francis A., 4614 Landis av., Sea Isle City
Hirsch, Arthur, 811 DeHirsch av., Woodbine
Hornstine, Harry H., 4004 Pacific av., Wildwood
Hughes, Harold F., Ocean st. & Columbia av.,CapeM.
Hughes, Samuel B., 246 E. Pine av., Wildwood
Markowitz, Isidor, 115 Broadway, West Cape May
Mazzotta, Samuel, 5806 Pacific av., Wildwood
Moir, John A., 18 N. Main st., Cape May C'rt House
Monosson-Friedland, Ida, 200 N. East av., Vineland
Newcomer, Harry S., 1048 Washington st., Cape May
Pettit, Herschel, 807 Wesley av., Ocean City
Records, Carl J., Franklin & Sewell avs., Cape May
Schwarz, Leopold, 237 E. Pine av., Wildwood
Smith, Marcia V., 821 Wesley av., Ocean City
Steel, William A., Beesley's Point
Townsend, John B., 824 Wesley av., Ocean City
Tyson, Edward B., 391 55th st., Ocean City
Wallen, Benjamin B., 217 E. Pine av., Wildwood
Way, Clarence W., 4515 Landis av., Sea Isle City
Whitcar, John H., Box 235, Ocean City
Yingling, Paul L., 804 Wesley av., Ocean City

HONORARY MEMBERS

Quigley, Frederic J., Union City
Ulmer, Chester L., Gibbstown

CUMBERLAND COUNTY (6)

Society organized June 16, 1816. Meets on the second Tuesday of October, December, February, April and June. Annual Meeting in April. Special scientific meetings are held in the evening in November, January, March and May.

ACTIVE MEMBERS

Aitken, Frank J., 62 N. Pearl st., Bridgeton
Anastor, Herbert C., 641 Wood st., Vineland
Bacon, Mary, 278 E. Commerce st., Bridgeton
Baker, Hugh W., 8th & Elmer sts., Vineland
Bardfeld, Benjamin B., 509 Landis av., Vineland
Bellak, Ellis R., Leesburg
Berkowitz, Benjamin, 188 E. Commerce st.,Bridgeton
Bostwick, Delazon S., Cumberland Hotel, Bridgeton
Branin, Howard S., 200 W. Main st.. Millville
Brown, Robert C., 318 N. Second st., Millville
Butcher, Charles, Heislerville
Carll, Jesse W.. 129 Broad st., Bridgeton
Corson, Kenneth E., 25 S. Myrtle st., Vineland
Cunningham, Charles, Jr., 716 Wood st., Vineland
Davies, George A., 53 Front st., Elmer
Day, Samuel T., Main st., Port Norris
DeSantis, Orazio J., 131 N. Third st., Millville
Friedland, Arnold J., 200 N. East av., Vineland
Fromkin, Charles, 20 Bank st., Bridgeton
Garrison, Sherman, 108 W. Commerce st., Bridgeton
Garrison, W. Sherman, Main st., Cedarville
Giacalone, Vincent, East Landis av., Vineland
Gray, Charles M., 6th & Grape sts., Vineland
Greene, Edwin C., 61 N. Pearl st., Bridgeton
Gricco, Anthony L., 306 S. East av., Vineland
Harris, Maurice N., 205 Irving av., Bridgeton
Hendrickson, Harold W., Edgewood av., Cedarville
Henry, Norman, 643 Wood st., Vineland
Kauffmann, Louis J., 228 N. Second st., Millville
Knowles, James S., 318 N. Second st.. Millville
Kolbe, Joseph T., 119 S. Second st., Millville
Kratka, William H.. 188 N. Pearl st., Bridgeton
Kump, Albert B., 39 Lake st., Bridgeton
Lang, Paul, 32 W. Commerce st., Bridgeton
Loder, Horace B., 225 E. Commerce st., Bridgeton
Lore, Harry E., Main st., Cedarville
Lyon, Earl C., 194 E. Commerce st., Bridgeton
Madi, Risley J., 735 Montrose st., Vineland
Magolda, Anthony F., 727 Grape st., Vineland
Marchione, Nicholas E., 105 S. East av.. Vineland
Mascara, Gaetano A., 540 Wood st., Vineland
Mayhew, Charles H., 329 Pine st., Millville
Mezzetti, Alfred F., 220 S. Sixth st., Vineland
Myatt, Leslie E., 98 N. Pearl st., Bridgeton
Neal, Charles B., Pine & Third sts., Millville
Palladino, Alessandro, 86 W. C'mm'rce st.. Bridgeton
Pastore, Marlo, East av. & Grape st., Vineland
Phillips, Ralph S., 27 S. Giles st., Bridgeton
Pino, Anthony, 196 Irving av., Bridgeton
Ramsey, F. Muriel, 310 E. Pine st., Millville
Rosen, Sol, 214 N. Second st., Millville
Rosiello, Louis E., 712 Wood st., Vineland
Ruggieri, Pasquale, 803 Elmer st., Vineland
Scott, Leonard G., 496 E. Commerce st., Bridgeton
Sewall, Arthur D., 52 N. Pearl st., Bridgeton
Sharp, Charles E., Main st., Port Norris
Sheppard, Alfred G., 309 Broad st., Elmer
Sheppard, Muse A., Broad & Penn sts., Elmer
Sheppard, Thomas S., 21 E. Vine st., Millville
Siegel, Sidney L., 227 N. Second st., Millville
Sydoriak, Vladimir L., 111 N. Third st., Millville
Thalheimer, Edward J., 7th & Plum sts., Vineland
Thomas, George N., 8th & Grape sts., Vineland
Walker, Ada H., 635 Landis av., Vineland
Walker, H. Burton, 635 Landis av., Vineland
Ware, Carl N., Bridgeton rd., Shiloh
Whaland, Berta, 117 Atlantic st., Bridgeton
Wilson, Charles W., 636 Wood st., Vineland
Wilson, Herbert H.. 24 Bank st., Bridgeton
Winslow, John H., 27 S. Valley av.. Vineland

HONORARY MEMBERS

Elmer, Matthew K., Bridgeton
Simkins, Raymond, Bridgeton

ESSEX COUNTY (7)

Society organized June 4, 1816. Meets second Thursday of each month, October to May, inclusive. Annual Meeting is second Thursday in May.

ACTIVE MEMBERS

Abbamonte, Louis W., 226 N. Park st., East Orange
Abel, Arthur R., Orange Memorial Hosp., Orange
Abrams, Abram B., 299 Clinton av., Newark
Adelman, Benjamin B., 186 Clinton av., Newark
Adelson, Edward T., 201 Keer av., Newark
Agnew, Hobart M., 17 Plymouth st., Montclair
Albano, Edwin H., 144 Harrison st., East Orange
Albano, Frank J., 535 N. Seventh st., Newark
Albano, Joseph, 535 N. Seventh st., Newark
Alcamo, John H., 321 S. Ninth st., Newark
Alexander, John W., 308 Main st., Orange
Alexander, Walter G., 48 Webster pl., Orange
Alford, Ralph I., 83 Park st., Montclair
Allan, James S., 144 Harrison st., East Orange
Allen, Chester B., Jr., 42 Gordonhurst av., Montclair
Allen, Raymond N., 144 Harrison st., East Orange
Alling, Frederic A., 15 Washington st., Newark
Alterbaum, George, 25 Park av., Caldwell
Altman, Charles D., 63 Forest Hill rd., West Orange
Amato, John R., 1134 Broad st., Newark
Ambrose, Anthony, 15 Washington st., Newark
Amster, Milton W., 9 Chapman pl., Irvington
Anderson, Robert C., 686 Mt. Prospect av., Newark
Anderson, William A., 1310 Broad st., Bloomfield
Anderson, Windom E., 481 Broad st., Newark
Angelillo, Marc C., 177 Elwood av., Newark
Antonius, Nicholas A., 27 W. Market st., Newark
Antopol, William A., 24 Stengle av., Newark
Anuario, Charles B., 365 S. Centre st., Orange
Applebaum, Irving L., 31 Lincoln Park, Newark
Arons, Harry, 31 Lincoln Park, Newark
Ash, Samuel, 866 So. 13th st., Newark
Aszody, Paul, 340 Waverly av., Newark
Auerbach, Friedrich, 490 Stuyvesant av., Irvington
August, Jacob, 149 Rhode Island av., East Orange
Autorino, Ralph R., 10 Harrison av., Montclair
Bachmann, William, 87 Hillcrest ter., East Orange
Bacote, Ernest F., 680 High st., Newark
Baime, Jules E., 72 Prospect st., East Orange
Baiocchi, Pascal J., 203 Hunterdon st., Newark
Baker, Maclyn F., 987 Sanford av., Irvington
Balls, Samuel B., 67 Baldwin av., Newark

Balsamo, Joseph J., 224 So. Eighth st., Newark
Balson, Zachary D. B., 49 Osborne ter., Newark
Barbella, Joseph D., 498 N. 13th st., Newark
Barkhorn, Charles W., 223 Roseville av., Newark
Barkhorn, Henry C., 45 Johnson av., Newark
Barnard, Frank G., 79 Hawthorne pl., Montclair
Barrett, James, 252 N. Arlington av., East Orange
Barrett, John E., 220 Woodside av., Newark
Barrett, Joseph F., 230 Parker av., Maplewood
Bass, Morris, 414 Chancellor av., Newark
Bass, Rose D., 54 Lyons av., Newark
Bauch, Solomon, 564 Hawthorne av., Newark
Baum, Felix, 406 Centre st., South Orange
Baum, Lewis F., 406 Centre st., South Orange
Baum, Otto, 406 Centre st., South Orange
Baum, Samuel, 10 Osborne ter., Newark
Bauman, Everett O., 862 S. 13th st., Newark
Bauman, Rush C., 92 High st., Nutley
Becker, Martin, 66 Hawthorne av., East Orange
Becker, Marvin C., 299 Clinton av., Newark
Becker, Sylvia F., 299 Clinton av., Newark
Beer, Sanel, 137 Washington st., Norwich, Conn.
Beirne, Donald P., 52 N. Arlington av., East Orange
Beling, C. Abbott, 15 Washington st., Newark
Bell, Horace O., Essex Co. Isolation Hosp., Belleville
Bellucci, Frank D., 300 Mt. Prospect av., Newark
Belott, August V., 129 Main st., West Orange
Belott, Louis V., 529 Park av., Orange
Bender, Louis, 285 Ridgewood av., Newark
Bengelsdorf, Aron, 29 Clinton pl., Newark
Bensel, Arlington, Jr., 145 Harvard st.,Newt'v'e,Mass.
Benz, George L., 251 S. Tenth st., Newark
Berardinelli, Carmine G., 92 Eighth av., Newark
Berg, Samuel, 156 Roseville av., Newark
Berger, William A., 346 Roseville av., Newark
Bergman, Meyer W., 31 Lincoln Park, Newark
Berlin, Morris R., 84 Girard pl., Newark
Berman, H. Robert, 299 Clinton av., Newark
Berney, Irving, 31 Lincoln Park, Newark
Berney, Ruth V., 16 Lyons av., Newark
Bernhard, William G., 79 Minninsink rd., Sh't Hills
Bernstein, Arthur, 89 Lincoln Park, Newark
Bernstein, Julius, 584 S. Tenth st., Newark
Besson, Franklin J., 999 Clinton av., Irvington
Bianchi, Angelo R., 184 Hunterdon st., Newark
Binder, Charles I., 833 South 13th st., Newark
Birdsall, Clarence A., 9 Smull av., Caldwell
Bissett, John V., 29 Hawthorne av., East Orange
Blackburne, George, 490 Central av., Newark
Blanchard, Kenneth, 144 Harrison st., East Orange
Blasi, Benjamin, 150 Hunterdon st., Newark
Blasi, Clifford, 26 Longfellow av., Newark
Bleiberg, Jacob, 31 Lincoln Park, Newark
Block, Charles, 368 Clinton av., Newark
Block, Marcus T., 177 Bloomfield av., Newark
Block, Max, 48 N. Fullerton av., Montclair
Block, Milton, 320 Union av., Irvington
Bocchini, Joseph A., 366 S. 12th st., Newark
Bokor, Emery, 819 S. 12th st., Newark
Bolten, Bernard, 377 Osborne ter., Newark
Bonomo, Michael J., 587 S. 10th st., Newark
Borino, John W., Jr., 15 Washington av., Newark
Borsher, Irving P., 306 Ridge st., Newark
Bove, Joseph, 306 Lincoln av., Orange
Bozzi, Robert, 406 Roseville av., Newark
Brackett, Elizabeth R., 371 Franklin av., Nutley
Bradford, Stella S., 26 N. Mountain av., Montclair
Bradley, Muriel, 126 Lorraine av., Up. Montclair
Brady, Frank J., 1038 S. Orange av., Newark
Brady, Raymond J., 777 Clinton av., Newark
Brakeley, Elizabeth, 71 Myrtle av., Montclair
Brams, William M., 7 Madison av., Newark
Brandchaft, Bernard, 658 Springfield av., Newark
Brandman, Otto, 190 Clinton av., Newark
Braun, Gustav A., 101 N. Grove st., East Orange
Breitstadt, Charles A., 157 Elwood av., Newark
Bremer, Kenneth M., 85 S. Harrison st., E. Orange
Briggs, Henry, 144 Harrison st., East Orange
Brim, Anne J. S., Edgemere Hotel, East Orange
Brizard, Joseph L., 81 High st., Belleville
Broadnax, Mary E., 176 Eagle Rock Way, Montclair
Brodkin, Eva T., 365 Osborne ter., Newark
Brodkin, Henry A., 365 Osborne ter., Newark
Bromberg, Jules H., 89 Lincoln Park, Newark
Brotman, Harry, 808 S. 11th st., Newark
Brotman, Morton M., 90 Avon av., Newark
Brown, Chester R., 22 Midland av., Arlington
Brown, Edward V., 9 Park av., Caldwell
Brown, Harold W., 27 S. Fullerton av., Montclair
Brown, Lewis W., 160 Roseville av., Newark
Browne, George F, 126 Lorraine av., Up. Montclair
Bruning, Richard H., 372 Wyoming av., Maplewood
Brunkow, Charles D., 31 Lincoln Park, Newark
Brunner, Hans, 670 Clinton av., Newark
Buckley, Jeremiah L., 666 Franklin av., Nutley
Buckner, Roscoe W. H., 20 Rose st., Newark
Buermann, August, III, Army
Bull, Louis M., 92 Heller Parkway, Newark
Bull, William J., 98 Park st., Montclair
Burch, Reynold E., 102 S. 14th st., Newark
Burke, Leonard P., 76 Lakeside av., Verona
Burke, Stephen E., 212 First av., Newark
Burne, John J., 17 Gould av., Newark
Burpeau, William P., 80 Woodland av., East Orange
Burrill, Benjamin B., Jr., 83 Park st., Montclair
Burstein, Frank, 1115 S. Broad st., Newark
Burstein, Leo Q., 115 Jefferson av., Elizabeth
Burstein, Rachel, 31 Lincoln Park, Newark
Busch, Herman, 38 Johnson av., Newark
Bush, Archer C., 40 Union st., Montclair
Butan, Louis, 479 Highland av., Orange
Buvinger, Charles W., 50 Washington st., E. Orange
Byck, Louis, 794 S. 11th st., Newark
Byrnes, Elizabeth W., 55 S. Maple av., East Orange
Bythewood, Alton E., Jr., 145 W. Market st.,Newark
Cacciarelli, Robert A., 517 Roseville av., Newark
Cagan, Maclyn, 60 Ridge rd., North Arlington
Caggiano, Anthony P., 137 Grove st., Montclair
Cahill, Laurence A., 361 Lafayette st., Newark
Calasibetta, Charles J., 37 Longfellow av., Newark
Caldwell, Donald M., 219 N. Arlington av., E. Orange
Caldwell, Julius A., 45 S. Mountain av., Montclair
Calvert, William C., 225 Gregory av., West Orange
Camche, Leo J., 250 Renner av., Newark
Cameron, Arthur E., 59 Somerset st., Newark
Campbell, Everette L., 144 Harrison st., East Orange
Campbell, William, 144 Harrison st., East Orange
Cantalupo, Emidio, 95 Nichols st., Newark
Cantelmo, Alphonse L., 144 Harrison st.,EastOrange
Cappiello, William, 352 Seventh av., Newark
Caputo, Anthony R., 301 Washington av., Belleville
Carbone, Francesco N., 440 Central av., Orange
Cardwell, Edgar P., 965 Broad st., Newark
Carlisle, Paul E., 763 Broad st., Newark
Carr, Josephus C., 75 13th av., Newark
Carrigan, Francis P., 305 Roseville av., Newark
Carrol, Wilfred, 51 Ingraham pl., Newark
Cassini, Henry C., 27 Tremont av., East Orange
Castellano, Martin G., 330 Roseville av., Newark
Cerone, Daniel M., 295 Roseville av., Newark
Cestone, Canio, 1425 Pompton av., Little Falls
Cetrulo, Gerald I., 234 Mt. Prospect av., Newark
Chamberlain, Richard R., 30 Lenox pl., Maplewood
Cherashore, Harry N., 363 Centre st., Nutley
Chernus, Jack, 61 Lincoln Park, Newark
Cheskin, Louis J., 31 Lincoln Park, Newark
Chiaramida, Joseph, Essex County Sana., Verona
Chiger, Alexander S., 621 High st., Newark
Chimacoff, Hyman, 159 Elizabeth av., Newark
Chmelnik, Abraham G., City Hospital, Newark

Christoph, Francis T., 959 Salem rd., Union
Ciccone, Edwin L., 261 Roseville av., Newark
Cincotti, Victor, 11 Hill st., Newark
Citrino, Robert J., 345 Centre st., Nutley
Clarken, Joseph A., 27 Ingraham pl., Newark
Clement, Baxter L., 15 Washington st., Newark
Clinton, Joseph A., 339 Park av., Newark
Cockburn, Wilfred P., 48 East Kinney st., Newark
Coes, Harold V., Jr., 64 Elston rd., Up. Montclair
Coffin, Henry F., 116 N. Ninth st., Newark
Cohen, I. Elvin, 561 Elizabeth av., Newark
Cohen, Maurice, 106 Valley rd., Montclair
Cohen, Sidney L., 29 Girard pl., Newark
Cohen, Sidney P., 509 Franklin av., Nutley
Cohn, George M., 867 S. 11th st., Newark
Cohn, Hermann, 393 Clinton av., Newark
Cohn, Royal M., 740 Clinton av., Newark
Coleman, Russell M., 76 N. Clinton st., East Orange
Colmer, Meyer J., 31 Lincoln Park, Newark
Colsh, LeRoy L., 612 Ridgewood rd., Maplewood
Colton, Ethan T., Jr., 31 Park st., Montclair
Comando, Edward N., 695 Clinton av., Newark
Comando, Harry N., 695 Clinton av., Newark
Conlon, Philip J., 25 James st., Newark
Connamacher, Harold S., 671 Springfield av.,Newark
Connolly, John J., 180 Ballantine Pkwy., Newark
Connolly, Richard N., 117 Fifth st., Newark
Conti, Horace, U.S.P.H.S.
Cook, Hugh F., 21 Roseville av., Newark
Cooperman, William, 647 Market st., Newark
Cordasco, Peter, 517 Roseville av., Newark
Cornish, Charles H., 673 Prospect st., Maplewood
Cosulich, Livio, 210 Littleton av., Newark
Coughlan, Ella A., 10 Oakwood av., Orange
Coughlin, Frank J., 100 Magnolia av., Arlington
Covino, Louis L., 44 Oakland ter., Newark
Cox, John C., 55 Woodland rd., Maplewood
Cox, William W., 79 S. Fullerton av., Montclair
Crane, Charles G., 78 Farley av., Newark
Crapanzano, Domenico, Essex Co. Hosp.,CedarGrove
Crater, Kenneth E., 24 Jersey st., Bloomfield
Crawford, Georgina U., 65 Prospect st., E. Orange
Crecca, Anthony D., 376 Roseville av., Newark
Crecca, Joseph V., 115 S. Centre st., South Orange
Crecca, William D., 111 Park av., Newark
Cregar, John S., 440 S. Harrison st., East Orange
Crossfield, Henry C., 144 Harrison st., East Orange
Crunden, Allan B., Jr., 21 Plymouth st., Montclair
Crystell, Edward H., 4 Hawthorne av., Nutley
Cucinella, Anthony B., 361 Lafayette st., Newark
Cuono, Joseph D., Essex County Sana., Verona
Cupaiuoli, Richard A., 30 Lenox pl., Maplewood
D'Addario, Anthony R., 132 Broadway, Newark
D'Agostini, Alfred J., 41 Columbia av., Newark
D'Agostini, Robert J., 41 Columbia av., Newark
Dailey, Edward S., 141 Connett pl., South Orange
D'Alessandro, Arthur J., 15 Salem st., Newark
D'Alessandro, Genesio L., Army
D'Ambola, Philip R., 21 S. Sixth st., Harrison
D'Amico, Thomas V., 70 Fairview av., Verona
Dane, Charles, 163 Kilburn pl., South Orange
Dane, John, 61 Scotland rd., South Orange
D'Angelo, Joseph C., 334 Washington av., Belleville
Dann, Frederick J., 65 Girard pl., Newark
Dante, Pasquale, 393 Millburn av., Millburn
Danzis, Louis, 31 Lincoln Park, Newark
Danzis, Maximillian, 31 Lincoln Park, Newark
Darden, Walter T., 149 W. Kinney st., Newark
Daron, Simeon, 31 Lincoln Park, Newark
Davidson, Eric W., 290 Park st., Upper Montclair
Davidson, Maurice M., 128 Grant av., E., Roselle Pk.
Davies, George W., 35 Fairview av., Verona
Davis, Louis, 825 S. 10th st., Newark
Davis, Thomas C., 30 Old Short Hills rd., Millburn
Davis, William J., 144 Harrison st., East Orange
Dear, Abraham L., 23 Synott pl., Newark
DeFilippis, Ralph L., 228 Tremont av., Orange
DeFronzo, Morando, 180 Fairmount av., Newark
DeGerome, James H., 10 Ridgewood av., Glen Ridge
DeHart, George K., 132 Sunset av., Verona
Deignan, William L., 257 Dodd st., East Orange
Delatusch, George A., 211 Park st., Montclair
Del Deo, Nicholas V., 49 State st., Newark
DeLeonardis, James V., 94 Jefferson st., Newark
Del Guercio, Olindo, 342 Clifton av., Newark
DeLia, Emilio, 25 Crane st., Newark
Della Fera, Lucien F., 206 First av., Newark
Della Ragione, Mario, 120 Second av., Newark
Del Negro, Albert E., 402 Roseville av., Newark
DeLorenzo, Francis, 281 Bellevue av., Montclair
DeMichele, Roland V., 516 Clifton av., Newark
Denes, Oscar, 402 Centre st., Nutley
Dennison, Alfred D., Jr., 601 Ridgew'd rd., Maplew'd
DePhillips, Benedict R., 228 Clifton av., Newark
DeTroia, Frederick C., 40 12th av., Newark
Deutel, Oscar R., 265 Newark av., Bloomfield
DeVincentis, Henry, 285 Henry st., Orange
Devlin, Arthur D., 138 Isabella av., Newark
deVries, John K., 144 Harrison st., East Orange
Dewis, Edwin G., 21 Westra st., Interlaken
Dias, Joseph L., Veterans Hosp., Lake City, Fla.
Dicker, Ralph L., 31 Lincoln Park, Newark
Dieffenbach, Richard H., 570 Mt.Prosp't av.,Newark
Diener, Samuel, 14 Clinton pl., Newark
DiFino, Felix J., 172 Edison pl., Newark
DiGiacomo, Harry E., 195 Hunterdon st., Newark
DiGiacomo, William H., 223 Fairmount av., Newark
DiLeo, Victor, 453 Park av., Orange
Dinge, Ferdinand C., 67 S. Munn av., East Orange
DiNorcia, Joseph, 498 W. Market st., Newark
Dmytriw, Stephen, 226 N. Park st., East Orange
Donchi, Sol M., 9 Madison av., Newark
Donnelly, John H., 634 S. 20th st., Newark
Douglass, Frederick W., 160 Lincoln st., Montclair
Dowds, Samuel C., 218 Walnut st., Montclair
Dranow, Paul, 233 Franklin av., Nutley
Drapkin, Berta, 31 Lincoln Park, Newark
Dreizin, David, 201 Lyons av., Newark
Dreskin, Jacob L., 34 Lyons av., Newark
Drewniany, Bernardine, 548 Page av., Lyndhurst
Duffy, Edward P., Jr., 379 Washington av., Belleville
Dulany, Theodore L., 170 W. Market st., Newark
Dulin, Everett V., 144 Harrison st., East Orange
Dunn, Theodore B., 35 Park pl., Bloomfield
Durchlag, E. Nelson, 60 Myrtle av., Irvington
Dwork, Harold K., 1 Hansbury av., Newark
Ebenfeld, Samuel W., 344 High st., Newark
Echikson, Joseph I., 31 Lincoln Park, Newark
Eck, Daniel B., 144 Harrison st., East Orange
Eckhardt, Janet L., 120 Prospect st., South Orange
Edelen, James J., 100 S. Munn av., East Orange
Edelson, Edmond, 127 Lehigh av., Newark
Edwards, Sydney K., 52 Lexington dr., Livingston
Ehrlich, Edward, 838 S. 13th st., Newark
Ehrlich, William E., 31 Lincoln Park, Newark
Eichler, Bernard B., 221 Midland av., Montclair
Ein, William B., 31 Lincoln Park, Newark
Einhorn, Samuel E., 241 16th av., Newark
Eisenberg, David S., 31 Lincoln Park, Newark
Eisenstodt, Lester W., 31 Lincoln Park, Newark
Ellis, Arthur J., 140 Roseville av., Newark
Emmer, S. Wolfe, 31 Lincoln Park, Newark
Englander, Charles, 41 Hillside av., Newark
English, John T., 110 Yale av., Irvington
Epstein, Harry B., 31 Lincoln Park, Newark
Epstein, William M., 322 E. Westfield av., Roselle P.
Erdman, George L., 853 Chancellor av., Irvington
Erler, Robert E., 360 Prospect st., South Orange

Ervin, Millard B., 36 Canterbury lane, Westfield
Etheridge, Charles H., 433 Prospect st., East Orange
Evans, Charles H., 144 Harrison st., East Orange
Evans, David P., 144 Harrison st., East Orange
Evans, John R., Jr., 496 Prospect st., Maplewood
Ewing, Harvey M., 31 Trinity pl., Montclair
Fader, Ferdinand, 350 Springdale av., East Orange
Fager, Rudolph O., 53 Park pl., Bloomfield
Failing, Brayton E., 31 Lincoln Park, Newark
Fain, Irving, 155 Chancellor av., Newark
Fanburg, Sol J., 31 Lincoln Park, Newark
Farb, Harry H., 21 Clinton pl., Newark
Fasano, Giovanni, 194 S. Seventh st., Newark
Fava, Philip V., 646 Sanford av., Newark
Fechner, Julius, 362 Clinton av., Newark
Fein, Bernard, 585 Elizabeth av., Newark
Feinsod, Samuel N., 1305 Clinton av., Irvington
Feldman, Frank H., 115 Lyons av., Newark
Fendrick, Edward, 17 Watson av., East Orange
Fern, Samuel S., 122 Elizabeth av., Newark
Fernicola, Anthony R., 565 Mt. Prospect av.,Newark
Feuer, Joseph A., 59 Seeley av., Arlington
Fink, A. Elston, 489 High st., Newark
Fink, Irving E., 71 Lincoln Park, Newark
Finkel, Joshua, 853 S. 11th st., Newark
Finkelstein, Aaron, 762 S. Tenth st., Newark
Finkelstein, Abe S., 670 Clinton av., Newark
Finkler, Rita S., 35 Leslie st., Newark
Finnerty, Urban R., 71 Park st., Montclair
Fischbein, Martin M., 976 Sanford av., Irvington
Fischer, David D., 35 Goldsmith av., Newark
Fischman, Harold H., 326 Avon av., Newark
Fischman, Mervin, 264 Clinton pl., Newark
Fissell, George M., 140 Roseville av., Newark
Fitzgerald, Robert, 77 Lincoln Park, Newark
Flanagan, James F., 620 Summer av., Newark
Flanagan, John J., 173 Roseville av., Newark
Flax, Ira I., 890 S. 16th st., Newark
Fleischmann, Viola G., 103 Scotland rd., S. Orange
Fleming, Joseph A., 247 Claremont av., Montclair
Flicker, David J., 82 Clinton av., Newark
Floody, Robert J., 324 Kingsland st., Nutley
Flower, Morrie A., 39 Lincoln Park, Newark
Flynn, Edward A., 176 Washington av., Belleville
Foley, James F., 344 N. Grove st., East Orange
Fonda, Gerald E., 350 Millburn av., Millburn
Ford, Theodore R., 144 Harrison st., East Orange
Forte, Daniel L., 545 Central av., Orange
Forte, Frank S., 318 Roseville av., Newark
Fortunato, Samuel J., 90 Kenwood pl., E. Orange
Fost, William H., 107 Franklin st., Belleville
Foster, Herbert W., 2 Erwin Park, Montclair
Fowler, Royale H., 744 Broad st., Newark
Frame, Dorothy L., 15 Highland av., Glen Ridge
Francy, Donald G., 314 Stuyvesant av., Lyndhurst
Frank, Geza M., 56 Hedden ter., Newark
Frank, Simon C., 62 Ridge rd., North Arlington
Franklin, Frank A., 256 S. Centre st., Orange
Fratantuno, Michael J., 14 Vermont av., Newark
Freda, Franklin, 63 Fourth st., Newark
Freeman, George C., Prudential Ins. Co., Newark
Freinkel, Jacob, 2 Hillside av., Newark
Friedlander, Kurt F., 25 S. Munn av., East Orange
Friedman, Harry, 721 S. 16th st., Newark
Friedman, Hyman, 90 W. 40th st., Bayonne
Fritsch, Alfred, 123 E. 53rd st., New York, N. Y.
Froelich, Jerome J., 74 Ingraham pl., Newark
Froelich, Joseph C., 74 Ingraham pl., Newark
Fruchtbaum, Robert P., 431 Franklin av., Nutley
Furman, Benjamin A., 31 Roseville av., Newark
Furst, Nathan J., 299 Clinton av., Newark
Furst, William, 188 Clinton av., Newark
Galioto, Frank M., 188 Ampere Parkway, Bloomfield
Gamba, Joseph, 388 Fairmount av., Newark
Gambacorta, Leopoldo, 397 N. 13th st., Newark
Gambacorta, Otto, 98 Broad st., Bloomfield
Gamsu, George, Army
Ganley, Arthur J., 390 Park av., East Orange
Ganot, Frank I., 392 Ridge st., Newark
Gardam, James D., 16 Longfellow av., Newark
Gardam, Joseph W., 16 Longfellow av., Newark
Gardner, Kenneth E., 45 Fremont st., Bloomfield
Gaydos, Albert, 225 Hillside av., Nutley
Gaylor, Earl L., Jr., 85 S. Harrison st., East Orange
Geannette, Ernest D., 14 Harrison av., Montclair
Gehl, Raymond H., 114 Lyons av., Newark
Gehl, Sidney H., 83 Wolcott ter., Newark
Gelb, Jerome, 86 W. Alpine st., Newark
Geller, Samuel, 696 High st., Newark
Gencher, Benjamin, 33 Park av., Caldwell
Gennell, Ernest, 298 Parker st., Newark
George, Melbourne E. W., 744 Broad st., Newark
Gerard, Patrick D., 364 Roseville av., Newark
Gerhardt, Paul E., 718 S. 17th st., Newark
German, Bernard, 89 Lincoln Park, Newark
Gershenfeld, David B., 73 Shanley av., Newark
Giannotto, Anthony S., 403 S. 10th st., Newark
Gianquinto, Peter, St. Barnabas Hospital, Newark
Giardina, John S., 341 Walnut st., Newark
Giardina, Vincent J., 102 Jefferson st., Newark
Gibson, Augustus, Mendham
Giffoniello, Arthur A., 334 Roseville av., Newark
Gifford, William R., 247 Park av., East Orange
Gilbert, Samuel M., 144 Clinton av., Newark
Gillespie, John L., 26 Midland av., Arlington
Gilligan, Walter W., 164 Forest av., Glen Ridge
Gilman, Charles M. B., Box 487, Red Bank
Gilman, Leonard, 6 S. Fullerton av., Montclair
Ginsberg, Leon, Essex County Hosp., Cedar Grove
Giuffra, Frank, 161 Park st., Montclair
Giuliana, Robert A., 31 Central av., Newark
Glass, Oscar, 838 S. 12th st., Newark
Glass, William H., 144 Harrison st., East Orange
Glazier, Jesse T., 670 Sanford av., Newark
Gluckman, Saul K., 78 Johnson av., Newark
Glynn, S. Robert, 54 Girard pl., Newark
Godfrey, Alan O., 231 Roseville av., Newark
Goehring, Harrison D., 141 Central av., Montclair
Goeller, Jacob D., 1165 W. Clinton av., Irvington
Goffman, Emanuel, 316 Claremont av., Montclair
Goldberg, Bernard R., 89 Lincoln Park, Newark
Goldberg, Harold H., 814 S. 10th st., Newark
Goldberg, Louis E., 31 Lincoln Park, Newark
Goldberg, Samuel A., 169 Gregory av., W. Orange
Golden, Clement H., 347 16th av., Irvington
Goldman, Jerome, 1 Johnson av., Newark
Goldman, Lester M., 53 Leslie st., Newark
Goldmann, Joseph, 103 N. Walnut st., East Orange
Goldstein, Henry Z., 31 Lincoln Park, Newark
Goldstein, Samuel M., 40 Johnson av., Newark
Goodman, Kenneth, 141 Park av., East Orange
Goodman, Stanley J., 89 Lincoln Park, Newark
Gordon, A. Julius, 140 Roseville av., Newark
Gorten, Manfred L., 669 Elizabeth av., Newark
Grant, Francis, 1224 Salem av., Hillside
Grant, William F., 309 Roseville av., Newark
Gras, Alfred E., 140 Roseville av., Newark
Grasso, Anthony P., Army
Gray, John W., 142 Clinton av., Newark
Green, Henry, 89 Lincoln Park, Newark
Greenberg, Jacob L., 189 16th av., Newark
Greenberg, Samuel, 46 Johnson av., Newark
Greene, Richard W., 46 Johnson av., Newark
Greenfield, Bernard H., 691 Clinton av., Newark
Greenfield, Herbert, 31 Lincoln Park, Newark
Greenfield, Leonard S., 691 Clinton av., Newark
Greenfield, Sylvan J., 32 S. Munn av., East Orange
Greenwald, Eugene, 100 Hollywood av., Hillside
Greenwald, Theo. L., 44 Maple av., Morristown
Greenwood, Samuel B., 190 Clinton av., Newark

Greer, Melvin A., 190 Washington st., Bloomfield
Gregory, Mildred G., 64 N. Ninth st., Newark
Greifinger, Marcus H., 31 Lincoln Park, Newark
Greifinger, William, 22 Vassar av., Newark
Griffin, Guy B., 208 South Centre st., Orange
Griffith, Roy, 909 Broad st., Newark
Gross, Irving, 16 Grove av., Verona
Gruber, William L., 680 Clinton av., Newark
Grubin, Charles J., 1410 Maple av., Hillside
Grubin, Harold, 690 Clinton av., Newark
Grundorfer, Joseph, 201 Lyons av., Newark
Gulick, James B., 363 Carteret pl., Orange
Gullord, Edward G., 21 Trinity pl., Montclair
Gurian, Sydney H., 262 Seymour av., Newark
Gutowski, Walter T., 104 Grove ter., Irvington
Hagman, Frank E., Army
Hahn, Katherine B., 372 Thornden st., South Orange
Hahn, William H., 198 Clinton av., Newark
Haley, Paul W., 719 Sanford av., Newark
Haller, Olga, 182 Roseville av., Newark
Halprin, Harry, 145 Union st., Montclair
Halsey, Levi W., 61 Church st., Montclair
Hamilton, Robert G., 92 Main st., Orange
Hanan, James T., 11 The Crescent, Montclair
Hand, Frederick G., 119 Irvington av., So. Orange
Hanfling, Seymour L., 115 S. Munn av., E. Orange
Hansen, Harold T., 153 Irvington av., South Orange
Hantman, Harold, 196 Roseville av., Newark
Harden, Albert S., 510 W. Market st., Newark
Harden, Albert S., Jr., 551 Ridgewood rd., Maplew'd
Harris, Jonathan L., 1060 Broad st., Newark
Harris, Leonard, 89 Lincoln Park, Newark
Harris, Morris, 102 Broad st., Bloomfield
Hartman, Winfield L., Jr., 7 Fielding court, S. Orange
Harvey, Robert K., 711 Kearny av., Arlington
Harvey, Thomas W., 59 Main st., Orange
Haschec, Walter, 690 S. 19th st., Newark
Haskin, Aaron H., 22 Goldsmith av., Newark
Hasney, Frederick A., 118 Main st., West Orange
Hauck, Lydia R. B., 644 Stuyvesant av., Irvington
Hauck, William H., 644 Stuyvesant av., Irvington
Hawkes, E. Zeh, 161 Roseville av., Newark
Hawkes, Stuart Z., 161 Roseville av., Newark
Hayes, Gerald W., 86 Hawthorne av., East Orange
Heineken, Theodore S., 17 Park pl., Bloomfield
Heller, Abraham R., 494 Belgrove dr., Arlington
Heller, Nathan B., 31 Lincoln Park, Newark
Hendlich, Milton G., 24 Johnson av., Newark
Henle, Carye-Belle, 202 Clinton av., Newark
Hennig, Paul F., 688 Stuyvesant av., Irvington
Henshaw, George R., 228 Midland av., Montclair
Hermann, John H., 197 S. Centre st., Orange
Hermann, John H., Jr., 197 S. Centre st., Orange
Herndon, Lewis S., 144 Harrison st., East Orange
Hersh, David H., 2 Custer av., Newark
Hertzberg, Irving, 586 Kearny av., Kearny
Hewson, George F., 21 Roseville av., Newark
Heyman, Arthur, 89 Lincoln Park, Newark
Hicks, Alfred M., 149 Park st., Montclair
Higgins, Eugene V., 1180 Raymond Blvd., Newark
Hill, Arthur G., 324 Grove st., Montclair
Hill, James O., 84 Barclay st., Newark
Hill, Robert H., 227 Roseville av., Newark
Hillman, Ernest C., Jr., 300 Broadway, Newark
Hilton, Clarence O., 556 N. Seventh st., Newark
Hinckley, Livingston S., 182 Clinton av., Newark
Hirsch, Theodore, 842 S. 13th st., Newark
Hitschmann, Otto B., 97 Lincoln Park, Newark
Hobart, Richard T., 454 Park st., Upper Montclair
Hoffman, David B., 31 Lincoln Park, Newark
Holder, Lester, 1750 Walker av., Union
Holderith, Albert E., 15 Virginia av., Livingston
Holler, Henry G., 234 Montclair av., Newark
Holmes, George J., 17 Elizabeth av., Newark
Holtz, Harry M., 299 Clinton av., Newark
Hooton, Thomas C., 31 Trinity pl., Montclair
Hopping, Richard A., 15 Washington st., Newark
Horland, Aaron H., 37 Chancellor av., Newark
Horn, Harry, 622 Stuyvesant av., Irvington
Horn, Max, 850 S. 11th st., Newark
Hosp, Paul H., 842 S. 12th st., Newark
Howard, James W., 199 Lorraine av., Up. Montclair
Howell, Thomas W., Army
Hubach, Maximilian F., Jr., 307 M'tg'mry st., Blmfd.
Hubbard, Robert Y., Fernwood Lodge, Hewitt
Huber, William H., 587 Prospect st., Maplewood
Huberman, John, 853 S. 12th st., Newark
Huberman, Victor, 853 S. 12th st., Newark
Hughes, Lee W., 965 Broad st., Newark
Hulett, Albert G., 20 Hawthorne av., East Orange
Humphries, Robert E., 637 Central av., East Orange
Hurff, J. Wallace, 671 Broad st., Newark
Hyde, Robert T., Navy
Hyland, Michael, 197 Kearny av., Kearny
Hymes, Ben, 66 Baldwin av., Newark
Iannone, Angelo B., 659 Park av., East Orange
Iatesta, Matthew, 60 Northfield av., West Orange
Ill, Edmund W., 477 Mt. Prospect av., Newark
Ill, Herbert M., 42 Woodland av., Glen Ridge
Inge, Hutchins F., 205 So. Orange av., Newark
Insabella. John, 317 S. Orange av., Newark
Irwin, Francis T., 51 Forest av., Caldwell
Irwin, James R., 330 Washington av., Belleville
Isaac, Benoit C., 83 Central av., Orange
Israel, Joseph, 252 Washington av., Belleville
Israeloff, Howard H., 1038 Clinton av., Irvington
Jackson, George H., 100 Elmwood av., Union
Jacobs, Benjamin, 1612 Clinton pl., Hillside
Jacobs, William, 1030 Stuyvesant av., Irvington
Jaeckle, Charles E., 136 Evergreen pl., East Orange
James, Bart M., 15 Washington st., Newark
Jarvis, Daniel G., 31 Lincoln Park, Newark
Jaso, James V., 710 Varsity rd., South Orange
Jedel, Meyer, 125 Fourth st., Newark
Jenkins, R. Jewett, 683 High st., Newark
Jennings, Robert E., 117 Washington st., E. Orange
Johnson, Robert A., 68 Roseville av., Newark
Jones, Rhys, 36 Hawthorne pl., Montclair
Jonitz, Robert, 153 S. Grove st., East Orange
Judge, John F., 33 Hazelwood av., Newark
Judge, Thomas V., Jr., Memorial Hosp.,Syrac'se,N.Y.
Just, Francis, 564 High st., Newark
Kaderabek, Erwin J., 144 Harrison st., East Orange
Kahrs, Grace M., 185 Broadway, Newark
Kalb, S. William, 416 Clinton pl., Newark
Kalter, George E., 640 Prospect st., Maplewood
Kaney, Emil M., 74 Clinton av., Newark
Kaplan, Henry L., 17 Weequahic av., Newark
Kaplan, S. Bernard, 31 Lincoln Park, Newark
Katzin, Eugene M., 50 Baldwin av., Newark
Kauder, Warren G., 299 Clinton av., Newark
Kaufman, Jerome G., 299 Clinton av., Newark
Kavanaugh, Daniel E., 566 Mt. Prospect av.,Newark
Kawalek, Roman, 46 S. Burnett st., East Orange
Kearney, Edward P. J., 83 S. Fullerton av., Montclair
Kearney, John F., 238 Hilton av., Maplewood
Keats, Sidney, 31 Lincoln Park, Newark
Keim, William F., Jr., 15 Washington st., Newark
Keith, Theodore R., 656 Bloomfield av., Nutley
Kelemen, Nicholas M., 315 Central av., East Newark
Kempe, George, 963 Caldwell av., Union
Kennedy, William M., 4548 Forest P. av.,St.Louis,M.
Kenney, John A., 39 Madison av., Montclair
Kenny, James, 18 Fairway dr., West Orange
Kern, E. Clarence, 45 Park st., Montclair
Kern, Meyer J., 144 Clinton av., Newark
Kesselman, Samuel R., 29 Stratford pl., Newark
Kessler, Henry B., 40 Clinton pl., Newark
Kessler, Henry H., 53 Lincoln Park, Newark

Keyssar, Alexander, 18 Isabella av., Newark
Kiessling, Charles E., 763 Broad st., Newark
Kiley, John E., 94 Park st., Montclair
Kimche, Irwin, 37 Rawley pl., Millburn
Kimmel, Charles, 488 Broad st., Bloomfield
Kinley, John W., 111 Clinton av., Newark
Kirkby, Cyril S., 45 Woodland av., Glen Ridge
Kirkman, Leroy G., 176 Roseville av., Newark
Kirkwood, Allan S., 53 Union st., Montclair
Klein, Andrew J. V., 94 Hawthorne av., E. Orange
Klein, Edward C., Jr., 73 Lincoln Park, Newark
Klein, Michael, 1540 Spring Val. dr.,Hunt'gt'n,W.V.
Kleinman, Maurice, 101 Clinton av., Newark
Klenk, Joseph P., 328 Belleville av., Bloomfield
Kline, George L., 423 Essex av., Bloomfield
Klosk, Emanuel, 326 Radel ter., South Orange
Klostermyer, Louis L., Mountainside Hosp., Montcl'r
Kobes, John J., 138 Kearny av., Kearny
Koch, James, 776 S. 19th st., Newark
Koeck, George P., 305 Roseville av., Newark
Kohn, Leo, 86 Park pl., South Orange
Kolodin, Abraham, 185 Broad st., Bloomfield
Koralek, Adolph H., 31 Lincoln Park, Newark
Kornfeld, Werner, 645 Central av., East Orange
Kosterlitz, Henry H., 640 Stuyvesant av., Irvington
Kraemer, Louis B., 74 Baldwin av., Newark
Kraker, David A., 31 Lincoln Park, Newark
Krichbaum, Carroll E., Army
Krone, William F., 31 Lincoln Park, Newark
Krug, Alfred J., 1460 Clinton av., Irvington
Kruger, William, 31 Lincoln Park, Newark
Kummel, Max, 31 Lincoln Park, Newark
Kunz, Harold G., 64 Hawthorne pl., Montclair
Kuperman, Henry L., 79 Baldwin av., Newark
Kyhos, Emma D., 314 Hillside av., Nutley
Lafferty, Elton B., 69 Orange av., Irvington
Landesman, William, 187 Kearny av., Kearny
Larkey, Irving G., 95 Shanley av., Newark
Leaman, Granville M., 182 N. Grove st., E. Orange
Le Bel, Louis J. B., 165 Grant av., Nutley
Leber, Otto H., 63 Myrtle av., Montclair
Lee, John J., 309 Park av., Orange
Lee, Robert E., 24 Great Oak drive, Short Hills
Leeds, Leonard W., 701 Stuyvesant av., Irvington
Leff, Abraham, 98 Hackensack st., Wood-Ridge
Leff, Charles O., 5 Elm Court, South Orange
Leff, William A., 299 Clinton av., Newark
Lefkovics, Sidney C., 41 Clinton pl., Newark
Lehman, David J., Jr., 140 Roseville av., Newark
Lemkin, Samuel, 71 Pomona av., Newark
Leon, Maurice J., 387 Up. Mountain av., Up. Montcl'r
Levin, Joseph, 831 S. 13th st., Newark
Levin, Murray, 20 Callamore dr., West Orange
Levine, Edward P., 384 Clinton av., Newark
Levine, Philip, 61 Lincoln Park, Newark
Levinson, David M., 860 S. 12th st., Newark
Levinson, Louis J., 43 S. Pierson rd., Maplewood
Levinstone, Bertram, Army
Levison, William, 75 Lincoln Park, Newark
Levitt, Jesse N., 26 Clinton pl., Newark
Levy, Anna L., 32 S. Munn av., East Orange
Levy, Julius, 329 Hartford rd., South Orange
Lewandowski, Edmund E., 2 Smalley ter., Irvington
Lewis, G. Rae, 458 Washington av., Belleville
Lewis, Sanford M., 39 Meadowbrook pl., Maplewood
Liccese, Emanuel, 84 Jefferson st., Newark
Licks, Frederick C., 64 Scotland rd., So. Orange
Lieb, Robert L., 61 Lincoln Park, Newark
Lieb, Saul, 90 Treacy av., Newark
Liegner, Ben, 858 S. 12th st., Newark
Lifland, Bernard D., 70 Shanley av., Newark
Lilien, Bernard B., 1191 Clinton av., Irvington
Lilien, Milton, 1191 Clinton av., Irvington
Lincoln, Jennings S., 140 Watchung av., Montclair
Linz, Curt, 561 Franklin av., Nutley
Lipstein, William, 845 Chancellor av., Irvington
Livingston, Bernard, 30 Park av., Caldwell
Livingston, Elias, 591 Stuyvesant av., Irvington
Livingston, Paul, 299 Main st., East Orange
Loder, Joseph S., 924 S. 17th st., Newark
Loeser, Lewis H., 188 Clinton av., Newark
Lohman, Herman, 31 Lincoln Park, Newark
Lombardo, Bartlo, 111 Wilson av., Newark
Long, John F., 82 Grand pl., Arlington
Longo, James J., 74 Ridge rd., N. Arlington
Lotman, Harry, 636 Stuyvesant av., Irvington
Lovell, John F., 1013 Clinton av., Irvington
Lowenstein, Aaron, 860 S. 11th st., Newark
Lowenstein, Harry A., 96 Milford av., Newark
Lowrey, James H., 79 Congress st., Newark
Luban, Benjamin, 730 High st., Newark
Lundblad, Walter E., 75 Prospect st., East Orange
Luongo, Federico, 212 S. Centre st., Orange
Lurie, Wolf, 379 Kearny av., Kearny
Lustig, Melvin, 227 Schuyler av., Newark
Lutz, William M., 3 Southern Slope dr., Millburn
Lynn, Hugh B., Pompton Turnpike, Pompton Plains
Lyon, Archibald, 115 Ridge rd., North Arlington
Lyons, James V., 333 Park av., Orange
Maas, Max A., 329 Clinton av., Newark
Mabey, J. Corwin, 242 Claremont av., Montclair
Macaluso, Dominic C., 452 Washington av.,Belleville
MacArt, J. Harold, 120 Prospect st., South Orange
MacArthur, Clymont, 219 Roseville av., Newark
Macdonald, Wentworth S., 1 N. Brookw'd dr., M'tcl'r
MacMillan, C. Wright, 4 Duryea rd., Up. Montclair
Macnieski, Henry F., 300 Davis av., Harrison
Macpherson, Elwood H., 34 Rawley pl., Millburn
Maffeo, Carl E., 149 Van Buren st., Newark
Maggio, George A., 419 Roseville av., Newark
Maggio, Nicholas A., 130 Fleming av., Newark
Magovern, Thomas F., 228 S. Orange av., S. Orange
Mahood, Herbert L., 86 Durand rd., Maplewood
Maisel, Irving, 112 Chapman pl., Irvington
Malgeri, John, 279 Shepard av., East Orange
Mamlet, Alfred M., 33 Johnson av., Newark
Mancusi-Ungaro, Elviro, 155 Mt. Prospect av.,New'k
Mancusi-Ungaro, Harold, 480 Grove st., Montclair
Mancusi-Ungaro, Lodovico, 156 Mt. Pr'sp't av.,Nwk.
Manfro, Gerard J., 35 Newark St., Newark
Marcus, Donald, 647 Stuyvesant av., Irvington
Margolis, Alfred, 736 Sanford av., Newark
Margulies, Charles, 49 Park dr., Nutley
Marin, Robert B., 85 Park st., Montclair
Marks, Zelda I., 200 Clinton av., Newark
Marquis, Dean W., 144 Harrison st., East Orange
Marquis, W. James, 12 Hawthorne av., E. Orange
Marra, Rocco S., 221 Park av., Orange
Martland, Harrison S., City Hospital, Newark
Masciocchi, Thomas A., 316 Park av., Orange
Mason, John T., Jr., 118 Young av., Cedar Grove
Mason, Virgil A., 144 Harrison st., East Orange
Massengill, Fulton, 233 Heywood av., Orange
Massey, J. Bruce, 665 High st., Newark
Masterson, John F., 98 Myrtle av., Irvington
Matheke, George A., 555 William st., East Orange
Matheke, Otto G., 328 Sussex av., Newark
Matheke, Otto G., Jr., 328 Sussex av., Newark
Matheson, Gilchrist E., 144 Harrison st., E. Orange
Matthews, Clifford B., 1180 Raymond Blvd., Newark
Matthews, William F., 180 Walnut st., Montclair
Mauer, Richard E., 109 S. Midland av., Arlington
Maurer, K. Virginia, 16 Prospect rd., Livingston
May, Ernst A., 157 Harrison st., East Orange
Mazur, Stephen H., 557 Grove st., Irvington
McAveney, Thos. F. G., 58 N. Munn av., East Orange
McCarroll, E. Mae, 59 Hillside pl., Newark
McCauley, Francis J., 140 Roseville av., Newark
McCluskey, Harry B., 40 Hawthorne av., E. Orange
McCormick, James E., 775 Elizabeth av., Newark

McCroskery, Hamilton M., 471 N. Arlington av., E.O.
McCroskery, James H., 471 N. Arlington av., E. O.
McCullough, Walter A., Essex Co. Hosp., C. Grove
McGuinn, William B., 10 N. Ridgew'd rd., S. Orange
McGuire, John J., 2 Gould av., Newark
McGurl, Francis J., 763 Broad st., Newark
McKelvey, Augustus J., 274 Millburn av., Millburn
McKeown, George H. C., 68 Mont'ne st., Br'kl'n,N.Y.
McKim, William F., 317 Roseville av., Newark
McLaughlin, William B., 120 Branch Br. dr.,Bellev'le
McLellan, George A., 19 Hawthorne av.,East Orange
McNeely, Julia A., 17 Lyons av., Newark
McVay, Edward A., 234 Lafayette st., Newark
Meehan, Martin M., 339 Washington av., Belleville
Meeker, Irving A., 581 Valley rd., Upper Montclair
Meinhard, Fred, 154 Van Buren st., Newark
Meisel, David B., 818 S. 12th st., Newark
Mele, Vincent, 268 Prospect st., South Orange
Mellen, Stanley H., 1 Park pl., Bloomfield
Menk, Paul E., 31 Lincoln Park, Newark
Merk, Anthony, 79 N. Ninth st., Newark
Merkelbach, Walter P., 288 Broad st., Bloomfield
Merliss, Eugene, 386 Clinton av., Newark
Mermod, Camille, 15 Washington st., Newark
Merrick, Evelina, 142 Clinton av., Newark ,
Merselis, John G., 110 Irvington av., South Orange
Messina, Thomas, 128 Park av., East Orange
Metsky, Joseph, 777 High st., Newark
Meurlin, Alfred, 144 Harrison st., East Orange
Mick, Edwin C., 46 S. Burnett st., East Orange
Miller, Eugene L., 63 Baldwin av., Newark
Miller, Herman P., 815 S. 12th st., Newark
Miller, I. Irwin, 675 Sanford av., Newark
Miller, Joseph A., 364 Prospect st., South Orange
Miller, Nathan, 268 S. Harrison st., East Orange
Miller, Ralph, 43 Girard pl., Newark
Minard, Edwy L., Knoll rd., R.F.D. No. 1, Boonton
Minier, Carl L., 226 N. Park st., East Orange
Miningham, William D., 18 Hedden ter., Newark
Minnefor, Charles A., 1164 S. Orange av., S. Orange
Mitchell, Augustus J., 270 Montclair av., Newark
Mitchell, Walter L., Jr., 161 Roseville av., Newark
Modeski, Chester J., 306 Roseville av., Newark
Modny, Michael T., 262 Ridgewood av., Glen Ridge
Moeckel, Clarence W., 63 S. Fullerton av., Montclair
Monaco, Dante P., 436 Roseville av., Newark
Monaco, Saverio A., 293 Camden st., Newark
Monte, Thomas D., 213 Park st., Montclair
Moore, Dean C., 391 Highland av., Orange
Moress, Edward J., 1524 Maple av., Hillside
Morgan, Browne, 32 Benson st., Bloomfield
Morton, Thomas V., Jr., 263 Bloomfield av., Bl'mfield
Motzenbecker, Peter F., 69 S. Pierson rd., Maplewood
Motzenbecker, William J., 16 Milford av., Newark
Moynahan, Brian, 118 N. Walter st.,Albuq'rque,N.M.
Mullin, Raymond J., 76 Shanley av., Newark
Murphy, Arthur G., 454 Park st., Upper Montclair
Murphy, Thomas W., Jr., Navy
Murray, Edward F., 140 Roseville av., Newark
Murray, Harrold A., 624 Mt. Prospect av., Newark
Nacca, Carl A., 46 Cleveland st., Orange
Nappi, Pasquale E., 433 Mt. Prospect av., Newark
Nash, Alexander E., 30 Forrest av., Verona
Nash, Herman S., 865 S. 11th st., Newark
Nataro, Jerome D., Army
Nataro, Joseph, 172 Littleton av., Newark
Nataro, Maurice, Nichols Gen. Hosp., Louisville,Ky.
Nelson, Clifford H., 200 Isabella av., Irvington
Nemzek, William P. B., 8 Hedden ter., N. Arlington
Nevius, William B., 75 Prospect st., East Orange
Newman, Grace T., 339 Grove st., Montclair
Newman, Julius, 318 Highland rd., South Orange
Ney, J. Marshall, 443 Baldwin rd., Maplewood
Nicola, Toufick, 96 Gates av., Montclair
Noll, Louis, 1383 Clinton av., Irvington
Novak, John G., 111 Clinton av., Newark
Novich, Max, 1484 Liberty av., Hillside
Nussbaum, Harvey E., 695 Clinton av., Newark
Nutzel, Leon P., Army
Nyiri, William A., 863 S. 12th st., Newark
Oberlander, Gertrude, 866 S. 13th st., Newark
O'Connor, Bernard A., 47 Central av., Newark
O'Connor, Dennis F., 27 S. Kingman rd., S. Orange
O'Connor, Michael J., 98 Shanley av., Newark
O'Connor, Paul A., 342 Roseville av., Newark
O'Crowley, Clarence R., 31 Lincoln Park, Newark
O'Grady, Michael J., 197 Nutley av., Nutley
Olini, Joseph J., 30 W. Market st., Newark
O'Lini, Louis J., 30 W. Market st., Newark
O'Neill, Charles L., 671 Broad st., Newark
O'Neill, Charles L., Jr., 671 Broad st., Newark
Onorato, Vincenzo R., 66 Christopher st., Montclair
Opdyke, Gordon M., 52 Claremont av., Verona
Openchowski, Mieczyslaw, 399 Mt. Pr'sp't av.,New'k
Oransky, Marvin, 10 - 38th st., Irvington
Orloff, Samuel, 59 Girard pl., Newark
Ormsby, Thomas J., 1180 Raymond Blvd., Newark
Orris, Harold J., 172 Lyons av., Newark
Orton, Henry B., 224 Delavan av., Newark
Ostrowski, Sigismund J., 265 Broad st., Bloomfield
Ott, Franklin B., 999 Clinton av., Irvington
Outwin, Richard N., 46 Maple st., Maplewood
Paddock, Royce, 965 Broad st., Newark
Palmer, Gideon H., 81 Evergreen pl., East Orange
Palmer, Henry S., 128 Court st., Newark
Panitch, William, 90 Baldwin av., Newark
Pannullo, John N. P., 266 Van Buren st., Newark
Panzer, Norman, 615 High st., Newark
Parell, George C., 275 S. Seventh st., Newark
Parent, Sol, 89 Lincoln Park, Newark
Parker, John E., 385 Park av., Orange
Parkes, Morey, Gallanger Gen. Hosp., Wash., D. C.
Parsonnet, Aaron E., 3 Madison av., Newark
Parsonnet, Eugene V., 89 Lincoln Park, Newark
Pascall, Thomas M., 197 Lincoln av., Newark
Pasquale, Thomas L., 92 High st., Orange
Pattyson, Ralph A., 144 Harrison st., East Orange
Paul, George A., 788 Lyons av., Irvington
Paul, H. Carl, 30 Westville av., Caldwell
Pavia, John R., 48 Mountainview av., East Orange
Payne, Guy, Old Stonehouse Farm, Canaan, N. Y.
Payne, Guy, Jr., 56 S. Prospect st., Verona
Pecora, Samuel, 599 Mt. Prospect av., Newark
Pedicini, Joseph L., 588 S. 10th st., Newark
Peer, Lyndon A., 15 Washington st., Newark
Pellecchia, Leonard J., 109 Parker st., Newark
Pendexter, Sidney E., 11 S. Arlington av., E. Orange
Pendexter, Sidney E., Jr., 11 S. Arlington av., E. O.
Pennington, A. W., 312 Tindall rd., Wilmington, Del.
Pentecost, Salvador D., 14 Clarem't av., Maplewood
Perelman, Jullus S., 94 Shanley av., Newark
Perham, Bertram S., 199 Lorraine av., Up. Montclair
Perlman, Maximllian, 188 High st., Nutley
Perlmutter, Irving K., 88 Clinton av., Newark
Permlson, Michael, 1735 Stuyvesant av., Union
Perrone, Anthony J., 456 Roseville av., Newark
Petrone, Peter A., 81 Roseville av., Newark
Petry, William, 109 Treacy av., Newark
Phillips, Algernon A., 212 W. Market st., Newark
Picardi, Armand A., 256 Littleton av., Newark
Pilch, Arthur G., 1 Willard av., Bloomfield
Pllioni, Louis, 91 Beach st., Bloomfield
Pllpel, Michael, 250 E. Front st., Plainfield
Pizzi, Francis W., 205 Park av., Orange
Pizzi, Marlo V., 205 Park av., Orange
Plain, Irving H., 88 Clinton av., Newark
Pois, John, 67 Scotland rd., South Orange
Poleshuck, Rubin, 100 Hollywood av., Hillside
Poller, Frederick K., 681 Stuyvesant av., Irvington
Pollis, Nicholas L., 642 High st., Newark

Pollock, Samuel L., 730 Prospect st., Maplewood
Polow, Benjamin, 200 Clinton av., Newark
Pomerantz, Samuel, 1551 Maple av., Hillside
Pomeranz, Raphael, 31 Lincoln Park, Newark
Potter, Raymond T., 144 Harrison st., East Orange
Prestifilippo, Silvestro, 105 Glenridge av., Montclair
Preston, Perry B., 12 Palm st., Newark
Proctor, Jesse E., 15 N. 13th st., Newark
Provenzano, Samuel, 317 S. 10th st., Newark
Quad, Clifford W., 52 Northfield av., West Orange
Quinn, Edward D., 323 Belleville av., Bloomfield
Rabinowitz, Jacob H., 35 Randolph pl., Newark
Rados, Andrew, 31 Lincoln Park, Newark
Ram, Nathan H., 38 Park av., Caldwell
Rampond, James R., 579 Springdale av., E. Orange
Ranson, Briscoe B., Jr., 120 S. Harrison st.,E.Orange
Rapalski, Adam J., Army
Rath, Morris, 140 Fourth av., East Orange
Rathgeber, Charles F., 18 William st., East Orange
Rattenne, Edward, 540 Mt. Prospect av., Newark
Ravitz, Samuel F., Army
Rawitz, Sidney B., 42 Chancellor av., Newark
Reeve-Allen, Jane, 42 Gordonhurst av., UpperM'tcl'r
Reich, Abraham L., 31 Lincoln Park, Newark
Reich, Henry, 89 Lincoln Park, Newark
Reich, Mortimer, 705 Elizabeth av., Newark
Reilly, Christopher J., 331 13th av., Newark
Reilly, John V., 520 Sanford av., Newark
Reinfeld, Abraham G., 354 Clinton av., Newark
Reinhardt, Warren I., 276 Springdale av., E. Orange
Reissman, Erwin, 31 Lincoln Park, Newark
Remondelli, Raphael E., 216 Littleton av., Newark
Renzulli, Francesco, 228 S. Seventh st., Newark
Resch, Henry U., 185 Liberty st., Bloomfield
Restaino, Charles F., 465 Parker st., Newark
Rettig, Isidor L., 36 Milford av., Newark
Ribbans, Robert C., 63 Central av., Newark
Rich, Charles, 191 Littleton av., Newark
Rich, Robert E., 191 Littleton av., Newark
Rich, Wallace E., Essex County Hosp., Cedar Grove
Richardson, Marvin T., 177 S. Liv'gston av.,Liv'gst'n
Richlan, Alfred, 181 Roseville av., Newark
Richlin, Padie, 118 Johnson av., Newark
Riffin, Irving M., 419 Park st., Upper Montclair
Rigeron, D. George, 160 Willard av., Bloomfield
Riggins, Edwin N., 161 N. Arlington av., E. Orange
Riggs, Vincent J., 295 N. Arlington av., East Orange
Rinzler, Elliot, 211 Roseville av., Newark
Ripley, E. Warren, 21 Plymouth st., Montclair
Ritota, Michael C., 85 Stuyvesant av., Newark
Rizzolo, Edward M., 523 Union av., Belleville
Robbin, Lewis, 18 Clinton pl., Newark
Robbins, Charles M., 31 Lincoln Park, Newark
Robbins, Eugene, 108 Glen av., Maplewood
Roberts, Allison H., 26 S. Ninth st., Newark
Roberts, David C., 3 Glen Oaks av., Summlt
Roberts, William A., 11 Park av., Caldwell
Robertson, Euston S., 500 Belgrove dr., Arlington
Robie, Theodore R., 144 Harrison st., East Orange
Robinson, Louis H., 31 Lincoln Park, Newark
Rocco, Frank, 729 Summer av., Newark
Rocco, John, 729 Summer av., Newark
Rogers, Robert H., 49 Ninth av., Newark
Roh, Robert F., 198 Clinton av., Newark
Romano, Patrick J., 310 Central av., Orange
Rosamilia, Ralph E., 480 N. Seventh st., Newark
Rose, Salvatore J., 242 Ivy court, Orange
Roseman, Herman I., 581 Ridgewood av., Glen Ridge
Rosen, Charles D., 115 S. Munn av., East Orange
Rosen, Emanuel, 692 High st., Newark
Rosen, Frank L., 33 Johnson av., Newark
Rosenbaum, Samuel X., 261 Main st., West Orange
Rosenberg, L. Charles, 11 Murray st., Newark
Rosenberg, Lillian M., 334 Bloomfield av., Montclair
Rosenberg, Max, 1585 Wyndmoor av., Hillside
Rosenthal, Arnold J., 41 Renner av., Newark
Rosenthal, Oscar J., 54 Van Ness pl., Newark
Rosenthal, Sydney, 200 Clinton av., Newark
Ross, Ira S., 190 Clinton av., Newark
Rost, Adolf S., 461 Mountainview av., Orange
Roston, Mark A., 63 Hansbury av., Newark
Roth, Ferdinand L., 98 S. Munn av., East Orange
Rothgesser, Jerome C., 14 Leslie st., Newark
Rothhouse, Burnet, 31 Lincoln Park, Newark
Rothseid, Abraham, 29 Scheerer av., Newark
Rotondi, Leonard J., Army
Rozsa, Stephen, 837 S. 11th st., Newark
Rubin, Abraham A., 240 Holmes st., Belleville
Rubin, Sidney, 170 Hawthorne av., Newark
Rubino, Nicholas M., 235 Roseville av., Newark
Ruccia, Arthur, 107 Clifton av., Newark
Rudomanski, Victor, 103 Duke st., Kearny
Rumage, William T., 513 Sanford av., Newark
Runyan, William J., 106 Broad st., Bloomfield
Russomanno, Paul, 497 Mt. Prospect av., Newark
Russomanno, Raymond L., 227 Clifton av., Newark
Sadusk, Joseph F., Jr., Pentagon Bldg., Wash., D.C.
Salmon, George G., Jr., 243 S. Harrison st., E.Orange
Salsberg, Ralph H., 23 Johnson av., Newark
Samson, Norman D., 543 Kearny av., Kearny
Samuel, Jerome H., 61 Lincoln Park, Newark
Sandford, Francis R., 30 Academy rd., Caldwell
Santangelo, Joseph A., 218 Grafton av., Newark
Santora, Phllip J., 361 Roseville av., Newark
Santoro, Thomas A., 141 Sanford st., East Orange
Saporito, Archibald R., 119 Ridge rd., N. Arlington
Saracino, Frank J., 107 Grand pl., Arlington
Sarno, Anthony, 130 Parker st., Newark
Sarno, John, Army
Saslow, Benjamin I., 102 Shanley av., Newark
Saslow, Stella K., 102 Shanley av., Newark
Sasso, Albert, 533 Mt. Prospect av., Newark
Savage, Eric D., 120 Prospect st., South Orange
Savel, Lewis E., 73 Shanley av., Newark
Sax, Max T., Army
Sbarra, Francesco C. N., 189 Roseville av., Newark
Schaaf, Royal A., 413 Mt. Prospect av., Newark
Schaaf, Royal S., 51 Ellery st., Cambridge, Mass.
Schaefer, Kenneth F., 763 Broad st., Newark
Schaffer, Barney, 10 Van Reyper pl., Belleville
Schaffer, Nathan, 172 S. Arlington av., East Orange
Schectman, Vera, 97 Lyons av., Newark
Scheiber, Geza, 769 Kearny av., Arlington
Scheller, George A., 65 Old Short Hills rd., Sh't Hills
Scher, Maurice A., 137 Lyons av., Newark
Schmukler, Jacob, 16 Johnson av., Newark
Schneider, Charles A., 694 Clinton av., Newark
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Schoenau, Carl W., 15 Highland av., Glen Ridge
Schotland, Clement E., 31 Lincoln Park, Newark
Schram, William S., 52 Liberty st., Kearny
Schramm, Joseph A., 572 High st., Newark
Schreck, Harry, 192 Roseville av., Newark
Schulsinger, Samuel, 80 Clinton av., Newark
Schulte, Herbert A., 701 Clinton av., Newark
Schults, Anna R., 25 Abington av., Newark
Schurman, Francis H. C., 35 Smull av., Caldwell
Schwartz, Harold, 200 Clinton av., Newark
Schwartz, Mortimer L., 636 Stuyvesant av.,Irvington
Schwartz, Ralph A., 675 High st., Newark
Schwarzfeld, Howard K., 301 Stuyvesant av., New'k
Scolamiero, Pasquale, 435 Third av., Newark
Scott, Harold R., 68 Central av., Orange
Scott, Norman M., 31 Clinton st., Newark
Scranton, Charles W., 59 Washington st., E. Orange
Scudese, Vincent A., 440 Parker st., Newark
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Seidman, Joshua I., Army
Seifert, Edwin A., 415 Ridgewood av., Glen Ridge
Sellitto, Anthony M., 115 Connett pl., South Orange
Sena, Marie A., 561 S. Orange av., Newark
Sevringhaus, Elmer L., 59 Warren pl., Montclair
Seward, William H., 188 S. Essex av., Orange
Shack, Maxwell H., 19 Lyons av., Newark
Shaffrey, Thomas A., 658 Grove st., Irvington
Shaner, Ralph D., 94 Hillside av., Nutley
Shannon, James B., 66 S. Fullerton av., Montclair
Shannon, Lardner M., 66 S. Fullerton av., Montclair
Shapiro, Irving, 78 Clinton av., Newark
Shapiro, Louis, 146 Broad st., Newark
Shapiro, Ralph N., 668 Clinton av., Newark
Shapiro, Samuel A., 209 Avon av., Newark
Shapiro, Sydney H., 334 Union av., Irvington
Shaul, Frederick G., 10 Washington st., Bloomfield
Shaul, John F., Navy
Shaw, John J., 31 Lincoln Park, Newark
Shechner, Isadore, 244 Broadway, Newark
Sheehan, Daniel C., 535 Sanford av., Newark
Sherman, A. Russell, 671 Broad st., Newark
Sherman, Arthur E., 70 Woodland rd., Maplewood
Sherman, Elbert S., 671 Broad st., Newark
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Shlionsky, Herman, 27 Wayland dr., Verona
Shor, David M., 32 S. Munn av., East Orange
Shreehan, Hubert F., 615 Summer av., Newark
Shulman, Murray W., 913 S. 20th st., Newark
Siegel, Jack G., 38 Johnson av., Newark
Siegel, Jacob W., 96 S. Tenth st., Newark
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Silver, Albert M., 89 Lincoln Park Newark
Silverman, S. Andrew, 860 S. 11th st., Newark
Silverstein, Benjamin J., 32 Hillside av., Newark
Silverstein, Jacob M., 73 Main st., Millburn
Simmons, Albert V., 720 Prospect st., Maplewood
Simms, George F., 541 Page av., Lyndhurst
Simon, Franklin, 89 Lincoln Park, Newark
Simon, Henry, 5 Vermont av., Newark
Simon, Ludwig L., 29 Hillside av., Newark
Simonson, Louis, 202 Osborne ter., Newark
Sims, Eugene R., 118 N. Clinton st., East Orange
Singer, Max, 147 Johnson av., Newark
Sisson, Nelson W., 144 Harrison st., East Orange
Sivolella, Nicholas W., 245 Clifton av., Newark
Siwek, Stanley, 428 Central av., Harrison
Skwirsky, Joseph, 37 Randolph pl., Newark
Slavin, Paul, 31 Lincoln Park, Newark
Smalzried, Elmer W., 69 Woodland av., E. Orange
Smarzo, Marjorie M., Univ. of Ill., Champaign, Ill.
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Smith, Charles H., 270 Ridgewood av., Glen Ridge
Smith, Christopher A., 43 Glen Ridge Pkw., Glen R.
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Smith, Thayer A., Forest dr., Short Hills
Snavely, Earl H., Newark City Hospital, Newark
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Sobol, Herman, 205 Rosevilie av., Newark
Sofman, Archie, 27 Nye av., Newark
Solk, Arthur G., 47 Lincoln Park, Newark
Solomon, Harold, 79 Shanley av., Newark
Somberg, Harold, 89 Lincoln Park, Newark
Somers, Fred L., 144 Harrison st., East Orange
Soschin, Samuel J., 31 Lincoln Park, Newark
Spallone, Joseph C., 123 Mt. Prospect av., Newark
Sparks, Spurgeon, Jr., 21 Oakwood av., Orange
Sperling, Irving L., 167 Osborne ter., Newark
Sperling, Walter, 29 Oxford st., Montclair
Spinner, Samuel L., 15 Third st., Elizabeth
Spinosa, William J., Army
Sprague, Edward W., 86 Washington st., Newark
Staehle, Richard H., 366 S. Orange av., S. Orange
Stahl, Alfred, 160 Lincoln av., Newark
Stahl, Charles, 659 Sanford av., Newark
Staknevich, John H., 309 Myrtle av., Irvington
Stanley, Thomas A., 77 Beech st., East Orange
Starr, George R., Jr., Wash'gt'n av., Duxbury, Mass.
Statman, Arthur J., 17 Leslie st., Newark
Stearns, Thornton, 312 S. Harrison st., East Orange
Steiner, Edwin, 31 Lincoln Park, Newark
Steiner, Herbert, 350 Stuyvesant av., Irvington
Stern, Max E., 2 Milford av., Newark
Stern, Morton M., 24 Girard pl., Newark
Stevens, Donald J., 1479 Compton ter., Hillside
Stevens, Merton H., 58 S. Maple av., East Orange
Stewart, Robert G., 79 Midland av., Montclair
Stickles, Lloyd C., 49 Parkhurst st., Newark
Stoddard, Gordon V., 96 Glenwood av., E. Orange
Stokes, Donald E., 120 Prospect st., South Orange
Stoll, George F., 330 Washington av., Belleville
Stoner, William H., 2 Broad st., Bloomfield
Strack, Vincent J., 1072 S. Orange av., Newark
Straub, Herbert H., 242 Springdale av., East Orange
Straus, Max, 87 Harrison pl., Irvington
Strauss, Frederick, 845 S. 12th st., Newark
Strauss, Max, 190 Clinton av., Newark
Strauss, William T., Jr., 8 Chester rd., Up. Montclair
Strazza, John A., 183 Broad st., Bloomfield
Streen, Morris E., 908 Bergen st., Newark
Sturchio, Eugenio, 178 Mt. Prospect av., Newark
Suesserman, Henry, 389 Lyons av., Newark
Sutton, Joseph G., Essex Co. Hosp., Cedar Grove
Svenson, Sven E., 515 Sanford av., Newark
Swain, Richard D., Jr., 211 Roseville av., Newark
Symes, Earl R., 544 Belgrove drive, Kearny
Szivos, Louis A., 160 Glenwood av., East Orange
Taff, Harry, 165 Roseville av., Newark
Taffet, Seymour, 55 W. Passaic av., Bloomfield
Taffet, William, 379 Union av., Belleville
Tansey, W. Austin, Jr., 169 Hobart av., Short Hills
Tarbell, Harold A., 13 Pennington st., Newark
Taterka, Adrian, Lake Hiawatha
Tenney, Albert S., 6 N. Munn av., East Orange
Tepper, Victor, 2 Parkview ter., Newark
Thomas, John H., 270 Lenox av., South Orange
Thomison, Harry E., 605 Broad st., Newark
Thompson, Frank F., Jr., 261 Orange rd., Montclair
Thompson, Kenneth W., Organon, Inc., Orange
Thornhill, Arthur C., 47 Forest st., Montclair
Thornley, William F., 495 Prospect st., Maplewood
Thum, Kurt W., 366 Main st., West Orange
Tillis, Herman H., 31 Lincoln Park, Newark
Tilton, William R., 763 Broad st., Newark
Tobey, Franklin J., 11 Hazelwood av., Newark
Tobey, John R., 4427 Chestnut st., Philadelphia, Pa.
Tocci, Frank, 74 Grove st., Montclair
Toczek, Heinrich A., 391 Bergen st., Newark
Tomec, Richard F., 70 Harrison av., Montclair
Torppey, John J., 472 Sanford av., Newark
Trautwein, Charles F., 131 Nesbit ter., Irvington
Travers, Frank A., 485 Park av., Orange
Troedsson, Bror S., 188 S. Essex av., Orange
Tucker, Albert B., 47 Lincoln park, Newark
Tuly, Ralph, 134 S. Kingman rd., South Orange
Tunis, Benno B., 22 Ingraham pl., Newark
Turi, Amedeo E., 407 Mt. Prospect av., Newark
Turner, Charles F., 151 Grove st., Montclair
Tushnet, Leonard, 662 18th av., Irvington
Tutela, Arthur C., 220 S. Seventh st., Newark
Twitchell, Adelbert B., 120 S. Harrison st., E. Orange
Tymeson, Walter R., 310 Main st., Orange
Ulan, Oscar, 92 Fleming av., Newark
Ulvestad, Lawrence E., 119 Irvington av., S. Orange
Urbach, George, 181 Chancellor av., Newark
Valentin, Irmgard, 131 S. Harrison st., East Orange

Vallario, Frank A., 333 Clifton av., Newark
Van Amberg, Robert J., 25 Trinity pl., Montclair
Vander Veer, H. Garrett, 295 M'tgomery st., Bl'mf'd
Van Emburgh, George H., 575 Belgrove dr.,Arlingt'n
Van Gieson, Edward J., 71 Watsessing av., Bloomf'ld
Vannatta, George W., 226 N. Park st., East Orange
Van Ness, H. Roy, 444 Parker st., Newark
Verbeck, Geo. B., 20 Church av., Ballston Spa, N. Y.
Villanova, Ralph N., 266 S. Elghth st., Newark
Vincent, Nicholas F., 144 Harrison st., E. Orange
Virgilio, Anthony A., 87 S. Centre st., Orange
VonHofe, Frederick H., 14 Colony dr., West Orange
Wagner, John, 48 Wilson av., Newark
Wakeley, William E., 144 Harrison st., East Orange
Waldron, Robert E., 699 Kearny av., Arlington
Walkenberg, Michael, 56 Clinton pl., Newark
Wallack, Charles A., 23 Treacy av., Newark
Walsh, Charles R., 95 W. Northfield av., Livingston
Walton, Ralph W., 102 Gates av., Montclair
Wangner, William F., 1190 Broad st., Bloomfield
Wannemacher, Paul, 87 Valley Way, West Orange
Ward, Chauncey P., 1481 Maple av., Hillside
Ward, Elisabeth B., 555 William st., East Orange
Ward, Gertrude P., 41 Park pl., Bloomfield
Ward, William R., 112 Chancellor av., Newark
Ward, William R., Jr., 112 Chancellor av., Newark
Warnecke, Rudolph E., 43 S. Maple av., E. Orange
Warner, William H. A., 444 Central av., EastOrange
Washington, William H., 321 High st., Newark
Waterman, Samuel M., 41 Shanley av., Newark
Weber, Francis C., 286 Mt. Prospect av., Newark
Weeks, Norman E., 159 Christopher st., Montclair
Weinberg, C. Richard, 597 Clinton av., Newark
Weiner, Harry, 283 Franklin st., Bloomfield
Weinmann, Max H., 714 Scotland rd., Orange
Weinstein, Francis S., 840 S. 11th st., Newark
Weinstein, Leopold, 441 West End av., New York C.
Weinstein, Morris W., 942 Sanford av., Irvington
Weiss, Fred, 254 Wainwright st., Newark
Weiss, Louis, 519 Springfield av., Newark
Weiss, Selma, 190 Clinton av., Newark
Weiss, William I., 80 Clinton av., Newark
Welkind, Allen A., 12 Smull av., Caldwell
Weller, Arthur, 19 Hillyer st., Orange
Wesson, Harrison R., 198 Valley rd., Montclair
Weston, Clifford G., 27 Woodland av., Glen Ridge
Wheeler, William K., 140 Roseville av., Newark
Whelan, Edward P., 460 Franklin av., Nutley
Whigham, Herbert H., Jr., 38 Madison av., Montclair
White, Robert R., 144 Harrison st., East Orange
Whitney, Leon H., 540 Broad st., Newark
Wiener, David, 196 Weequahic av., Newark
Willan, Edward H., 74 S. Munn av., East Orange
Willey, F. Parker, 153 Roseville av., Newark
Williams, John J., 78 Walnut st., Newark
Willner, Albert, Army
Willner, Irving, 18 Waverly av., Newark
Willner, Milton, 822 S. 12th st., Newark
Willner, Philip, 852 S. 11th st., Newark
Willson, James H., 144 Harrison st., East Orange
Wilson, John H., Jr., 85 Halsted st., East Orange
Winfield, Irwin, 493 Central av., Newark
Winter, Egon W., 825 S. Tenth st., Newark
Wolf, Raymond E., 251 Ridgewood av., Glen Ridge
Wolfe, Jacob S., 44 Watsessing av., Bloomfield
Wolfe, William W., 383 Mulberry st., Newark
Wood, E. LeRoy, 225 Ballantine Parkway, Newark
Work, John L., Mountainside Hosp., Montclair
Wortman, Harry C., Jr., 17 Warren st., Nutley
Wortman, Herb. M., 121 Buckingh'm rd., U. Montcl'r
Wrensch, Alexander E., 79 Valley rd., Montclair
Wright, Robert E., 172 Concord dr., River Edge
Wuerthele, Virginia E., 560 Mt. Prospect av.,Newark
Wujciak, Henry J., 193 Warwick st., Newark
Wurts, Margaret M., 27 Wellesley av., Up. Montclair
Wurzel, Milton, 2 Farley av., Newark
Wyatt, Joseph H., 135 Clinton av., Newark
Wyker, Arthur W., 57 Park pl., Bloomfield
Wynder, Alfred, 654 Lyons av., Irvington
Yablonsky, Max, 30 Shanley av., Newark
Yadkowsky, Emanuel, 637 High st., Newark
Yaguda, Asher, 61 Lincoln Park, Newark
Yates, Glen L., 270 Ridgewood av., Glen Ridge
Yelin, Gabriel, 200 Clinton av., Newark
York, Jack S., 63 Baldwin av., Newark
Young, I. Henry, 220 Columbia av., Irvington
Zacher, Andrew A., 685 High st., Newark
Zager, Saul, 40 Spruce st., Newark
Zehnder, A. Charles, 188 Roseville av., Newark
Zimmer, Louis, 622 Varsity rd., South Orange
Zimmerman, Coler, 6 Colony dr., S., West Orange
Zingali, John A., 103 Glenridge av., Montclair
Zucker, Isadore, 112 Shanley av., Newark
Zukerberg, Nathan, 21 Johnson av., Newark
Zvaifler, Nathan, 46 Wilbur av., Newark
Zweibel, Leonard, 871 S. 11th st., Newark
Zwelgel, Isidore, 22 Montlcello av., Newark
Zybulewski, Edmund A., 410 Bergen st., Newark

ASSOCIATE MEMBERS

Bombardieri, Anthony, 251 Centre st., Nutley
Bosch, Donald T., 244 Woodside av., Ridgewood
Brinning, Elbert C., Jr., 442 Washington av.,Montcl'r
Calabrese, Angelo, 210 Littleton av., Newark
Carnrick, Millard, Jr., 14 Freeman st., Roseland
Conner, Herbert A., 268 Bastogne sq., Newark
Davis, John, 10 Washington st., Bloomfield
Donauer, Robert M., 34 Bedford rd., Summit
Dooley, James H., 295 Montgomery st., Bloomfield
Duffy, William J., 22 Nairn pl., Newark
Einhorn, Harvey, 241 Sixteenth av., Newark
Fullilove, Robert E., Jr., 24 Waverly av., Newark
Goodman, Rowland D., II, 265 S. Harris'n st.,E.Or'ge
Grundfest, Jack, 659 Kearny av., Arlington
Grundfest, Phillp, 53 Kearny av., Kearny
Halstead, Harry C., 77 Hawthorne av., Nutley
Harms, Charles R., 363 Park st., Montclair
Kaplan, Elliot L., 251 Meeker av., Newark
Kelly, John L., 82 Clinton av., Newark
Kessler, Morris, 626 Schuyler av., Arlington
Kleswetter, Dayton T., 75 Prospect st., East Orange
Kollmar, Robert, 617 W. 168th st., New York, N. Y.
Langgaard, Charles, 20 Prospect st., West Orange
Levine, Burton, 31 Lincoln Park, Newark
Levy, Bernard, 181 Claremont av., Verona
Mann, Hillard, 431 Washington av., Belleville
Marchigiano, Anthony T., 310 Roseville av., Newark
Merliss, Harry, 386 Clinton av., Newark
Mulberg, Harry, 769 Kearny av., Arlington
Neibrief, Milton N., 1 Johnson av., Newark
Nelson, Richard A., 763 Broad st., Newark
Nichols, Joseph E., 144 S. Harrison st., East Orange
Padovano, Joseph, 517 Roseville av., Newark
Piegari, Felix H., 111 Mt. Pleasant av., Newark
Rachal, Hurve J., 393 Roseville av., Newark
Rugglo, Joseph, 8 Heddon ter., North Arlington
Sheldon, Siegfried, 712 Lyons av., Irvington
Siegel, Robert, 96 S. Tenth st., Newark
Small, Leon I., 250 Millburn av., Millburn
Sobol, Betty M., 396 N. Arlington av., East Orange
Statman, Bernhardt, 849 S. Twelfth st., Newark
Strassburger, Paul J., Jr.,330Wash'gt'n av.,Bellev'le
Sweeley, William J., 17 Smull av., Caldwell
Szelewa, Edward S., 87 Stuyvesant av., Newark

Underwood, Robert, 345 Washington av., Belleville
Van Ness, Walter J., 364 Franklin st., Bloomfield
Warter, John P., Jr., 570 Belgrove dr., Arlington
Winslow, John, 210 Orange rd., Montclair
Wylly, Martin D., 320 Park av., Orange

EMERITUS MEMBERS

Areson, William H., De Soto City, Florida
Baird, Thompson M., Point Pleasant
Baldwin, Samuel H., South Orange
Bleick, Theodore E., Newark
Carman, Fletcher F., Montclair
Chamberlain, Aims R., Maplewood
Emerson, Linn, Orange
Lowy, Otto, Hollywood, Florida
McBride, Hesser G., East Orange
Mierau, Ernest W., West Point Pleasant
Price, Nathaniel G.
Schachter, Harry A. H., Deal
Smith, Byron J., East Orange
Smith, Joseph J., Newark
Szerlip, Leopold, Newark
Teeter, Charles E., Newark

GLOUCESTER COUNTY (8)

Society organized December, 1818. Regular meetings on third Thursday of each month, except June, July and August. Annual Meeting in May. Annual Social Session in October.

ACTIVE MEMBERS

Battaglia, Albert J., 62 Hunter st., Woodbury
Beall, William T., Main st., Clarksboro
Booth, George R., 219 Highland av., Westville
Bowersox, Clarence A., 509 N. Broad st., Woodbury
Brewer, David R., Jr., 112 N. Broad st., Woodbury
Brower, Francis M., III, 62 E. Center st., Woodbury
Burkett, J. Paul, 215 Delaware st., Woodbury
Burkett, Wendell J., 16 W. Holly av., Pitman
Campo, A. Guy, 401 Broadway, Westville
Campo, Salvatore T., 401 Broadway, Westville
Chalfant, William P., Br'dway & Crafton av.,Pitman
Chesley, Norman K., 585 Nassau av., Paulsboro
Collins, Louis K., 54 State st., Glassboro
Faux, Frederick J., 32 N. Columbia st., Woodbury
Fooder, Horace M., 110 Main st., Williamstown
Harris, William G., Main st., Mullica Hill
Hollinshed, Ralph K., 351 Broadway, Westville
Hughes, Joseph F., 16 N. Broad st., Woodbury
Hutcheson, Robert B., 215 Delaware st., Woodbury
Kehler, James G., Jr., Underwood Hosp., Woodbury
La Rosa, Frank J., 316 N. Broadway, Pitman
Laurusonis, John, 319 W. Broad st., Gibbstown
Lintz, Sidney Z., 525 Kings Highway, Swedesboro
Livengood, Baxter A., 64 Cooper st., Woodbury
Moore, Ralph L., 127 N. Broad st., Woodbury
Nelson, Harry, 36 Lupton av., Woodbury
Patterson, Isaac N., 26 Station av., Westville
Pedrick, William W., 11 West st., Glassboro
Pegau, Paul M., 246 Briar Hill lane, Woodbury
Puff, Robert C., N. Broad st., Woodbury
Rhoads, S. Creadick, 104 Station av., Westville
Rogers, Dorothy M., 50 Cooper st., Woodbury
Ruttenberg, Louis, 19 Hopkins st., Woodbury
Sheets, Cecil C., 213 W. Broad st., Paulsboro
Sherman, Fuller G., 204 Delaware st., Woodbury
Sinexon, Henry L., 36 W. Broad st., Paulsboro
Stewart, Irving J., 529 Kings Highway, Swedesboro
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Underwood, J. Harris, 509 N. Broad st., Woodbury
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Whitaker, Henry J., 10 S. Broadway, Pitman
Wright, Herman W., 818 S. Broadway, Pitman
Zahn, Jack R., 90 Paterson av., Gibbstown

ASSOCIATE MEMBER

Clair, Eli C., Main & Tatum sts., Mantua

HUDSON COUNTY (9)

Society organized October 11, 1851. Meets first Tuesday evening of each month, October to May, inclusive. If a legal holiday, meeting to be held on next day. Annual Meeting in May.

ACTIVE MEMBERS

Abers, Bernard D., 565 Summit av., Jersey City
Africano, Julius V., 43 Columbia ter., Weehawken
Africano, Scipio H., 526 15th st., Union City
Agolia, Michael W., 2201 Palisade av., Union City
Albini, Mario, 204 Fifth st., Hoboken
Alpert, Edward, 661 Jersey av., Jersey City
Alter, Nicholas M., 410 Fairmount av., Jersey City
Amdur, Louis A., 2540 Boulevard, Jersey City
Angelo, Joseph A., Bank Bldg., Secaucus
Annitto, John E., 170 Belmont av., Jersey City
Anrig, Grace E., 613 Summit av., Union City
Aria, Charles J., 1818 Boulevard, Jersey City
Aria, Michael H., 31 Glenwood av., Jersey City
Aronoff, Herman L., 225 Claremont av., Jersey City
Artaserse, George V., 185 Bergen av., Jersey City
Ash, Arthur F., 710 Boulevard, E., Weehawken
Auriemma, Michele, 421 Adams st., Hoboken
Aymar, Dorothy, 608 Fourth st., Union City
Bahnson, Conrad M., 170 Bowers st., Jersey City
Bailyn, Emanuel, 400 60th st., West New York
Baldini, Charles F., Jr., 513 15th st., Union City
Baldini, Howard E., 513 15th st., Union City
Balsamo, Anthony J., 16 Enos pl., Jersey City
Barbarito, William N., 135 Bentley av., Jersey City
Barone, Francis A., 94 Lembeck av., Jersey City
Bedrick, John J., 945 Avenue C, Bayonne

Behrens, Herman H. E., 312 Webster av., Jer. City
Ben-Asher, Solomon, 61 Gifford av., Jersey City
Benjamin, Harold C., 59 Crescent av., Jersey City
Bergen, Marshall, 100 Bentley av., Jersey City
Bergmeyer, Josef T., 6500 Palisade av., W. N. Y.
Berlin, Joseph I., 2600 Boulevard, Jersey City
Bieber, Harold B., 115 Fairview av., Jersey City
Bigliani, Urban R., 7308 Boulevard, North Bergen
Blakey, Abram P., 144 Wegman Pkwy., Jersey City
Bogacz, John, 3288 Boulevard, Jersey City
Bookrajian, Edward N., 8027 Boulevard, N. Bergen
Borchek, Arthur R., 7523 Broadway, N. Bergen
Borrone, Milton G., 2624 Boulevard, Jersey City
Borshaw, Hyman, 108 Bentley av., Jersey City
Bortone, Frank, 2765 Boulevard, Jersey City
Boselli, Emile H., 614 15th st., Union City
Botti, John A., 157 Wegman Pkwy., Jersey City
Boyers, Sidney S., 413 60th st., West New York
Boylan, Matthew E., 66 Van Reipen av., Jersey City
Boyle, Francis L., 805 Boulevard, Bayonne
Bradasch, George A., 1415 Central av., Union City
Brady, Thomas S., 678 Avenue C, Bayonne
Braitman, Max, 412 60th st., West New York
Brauer, Charles, 2219 Boulevard, Jersey City
Brauer, Selig L., 2012 Boulevard, Jersey City
Braunstein, Sigmund C., 424 57th st., W. New York
Braunstein, William P., 1 Bellevue st., Weehawken
Bresev, Morris, 42 Broadman Parkway, Jersey City
Brewer, Catherine H., 808 Ocean av., Jersey City
Brick, George J., 43 Cottage st., Jersey City
Brozdowski, John J., 562½ Jersey av., Jersey City
Buckley, Richard F., 1122 Garden st., Hoboken
Butler, Vincent P., 33 Bentley av., Jersey City
Campana, Vincent R., 386 Fairmount av., Jersey City
Cangemi, Vito F., 50 Glenwood av., Jersey City
Cannon, Edward A., 7512 Boulevard, North Bergen
Caridi, Salvatore, 431 59th st., West New York
Carney, John W., 616 Jersey av., Jersey City
Carr, Mary B., 1 Astor pl., Jersey City
Casciano, Adolph D., 189 Harrison av., Jersey City
Catlaw, J. Kenneth, 321 Stegman Pkw., Jersey City
Cerchio, Michael, 281 Newark av., Jersey City
Cetta, Peter, 109 Mountainside av., Nutley
Chapman, Ellis J., 203 Danforth av., Jersey City
Chapman, Walter I., 700 Avenue C, Bayonne
Chayes, Sydney, 980 Avenue C, Bayonne
Chieffo, Henry, 387 Hoboken av., Jersey City
Chizik, John J., 162 W. 31st st., Bayonne
Christian, Henry A., 263 Woodlawn av., Jersey City
Cieri, Daniel S., 1515 Central av., Union City
Cohen, Herman, 489 Jersey av., Jersey City
Cohen, Samuel, 100 Clifton pl., Jersey City
Cohen, Samuel A., 980 Summit av., Jersey City
Connell, Emmet J., 2227 Boulevard, Jersey City
Connolly, Thomas W., 921 Bergen av., Jersey City
Conty, Anthony J., 318 48th st., Union City
Cosgrove, Robert A., 186 Belmont av., Jersey City
Cosgrove, Samuel A., 88 Clifton pl., Jersey City
Costa, George J., 567 Jersey av., Jersey City
Coughlin, John P., 128 Wegman Pkwy., Jersey City
Cracco, Frederick A., 211 Palisade av., Union City
Cricco, Carl F., 909 Washington st., Hoboken
Cufari, Carmine J., 725 18th st., Union City
Cziraky, Anton, 516 34th st., Union City
D'Acierno, Pellegrino A., 1708 Palisade av., UnionC'y
Daly, Edmund J., 921 Bergen av., Jersey City
Danielson, John J., 4703 Tonnele av., No. Bergen
DeFuccio, Charles P., 12 Duncan av., Jersey City
De Fusco, G. Thomas, 330 Newark av., Jersey City
DeMarco, Silverino V., 2780 Boulevard, Jersey City
DePietro, Vincent P., 520 48th st., Union City
De Rosa, Louis, 193 Danforth av., Jersey City
Dershewitz, Irving, 835 Montgomery st., Jer. City
DeSevo, Gerard E., 108 Fairview av., Jersey City
Detrano, Salvatore J., 903 Washington st., Hoboken
DeVincenzo, F. Richard, 629 Wash'gton st.,Hobok'n
Dexter, Harriet E. T., 903 Avenue C, Bayonne
Dolganos, Moses, 268 Palisade av., Jersey City
Donnelly, Joseph P., 58 Kensington av., Jersey City
Donohoe, Lucius F., 140 W. Eighth st., Bayonne
Doody, William M., 19 Bentley av., Jersey City
Doran, Ralph J., 200 11th st., Hoboken
Dougherty, Daniel D., 1218 Bloomfield st., Hoboken
Doyle, John J., 426 Fairmount av., Jersey City
Driscoll, Raymond S., 117 W. Fifth st., Bayonne
Dukes, Howard R., 220 Kearny av., Kearny
Edelstein, Isidore, 938 Hudson st., Hoboken
Edwards, Lena F., 358 Pacific av., Jersey City
Elwood, Benjamin J., 91 W. 38th st., Bayonne
Ettinger, Samuel, 501 32nd st., Union City
Evans, J. Lawrence, 7117 Park av., Woodcliff
Faber, Edward, 154 Bergen av., Jersey City
Facciolo, Frank, 562 Boulevard, Bayonne
Faison, John B., 45 Glenwood av., Jersey City
Fattel, Henry C., 8300 Boulevard, North Bergen
Fauquier, Leonard B., 172 Jewett av., Jersey City
Federer, John J., 69 Columbia ter., Weehawken
Feinberg, Harry, 837 Avenue C, Bayonne
Feldman, Morris, 51 Bentley av., Jersey City
Feldman, Noah, 626 Bergen av., Jersey City
Feller, William, 283 Bergen av., Jersey City
Fialk, Harry, 337 52nd st., West New York
Ficke, Sylvia A., 906 Summit av., Jersey City
Fifer, William T., 746 Avenue C, Bayonne
Figurelli, Francis A., 88 Highland av., Jersey City
Fineberg, Jacob C., 50 Glenwood av., Jersey City
Finger, Frederick A., 943 Avenue C, Bayonne
Finke, Charles H., 317 York st., Jersey City
Finke, Charles H., Jr., 317 York st., Jersey City
Finkelstein, Malvin, 2139 Boulevard, Jersey City
Finkelstein, Max, 3258 Boulevard, Jersey City
Finn, Frederick A., 921 Bergen av., Jersey City
Finn, Henry R. W., 84 Lembeck av., Jersey City
Fischer, Leo E., 70 Sherman pl., Jersey City
Flichtenfeld, Morris 283 Fourth st., Jersey City
Fliegel, Hilda C., 309 Baldwin av., Jersey City
Frank, Morris, 920 Avenue C, Bayonne
Frank, Nathan, 180 Bowers st., Jersey City
Frankel, Henry, 229 60th st., West New York
Franklin, I. Harold, 191 Palisade av., Jersey City
Freyberger, George A., 85 Columbia ter.,Weehawken
Freymann, Walter, 5006 Hudson av., W. New York
Furman, Sol T., 344 Fairmount av., Jersey City
Garibaldi, Louis J., 1018 Hudson st., Hoboken
Gerne, Timothy A., 972 Summit av., Jersey City
Gerner, Harry E., 2627 Boulevard, Jersey City
Ghee, Euclid P., 115 Claremont av., Jersey City
Giannasio, Joseph, 813 Montgomery st., Jersey City
Ginsberg, George, 624 Bloomfield st., Hoboken
Gleeson, Thomas P., 82 W. Fifth st., Bayonne
Gnassi, Angelo M., 130 Wegman Parkway, Jer. City
Goldman, David L., 42 W. 22nd st., Bayonne
Goldsmith, Alfred S., 8129 Boulevard, North Bergen
Goldstein, Joseph D., 681 Bergen av., Jersey City
Gordon, Isaac L., 1815 Boulevard, Jersey City
Gorenberg, Harold, 451 Bramhall av., Jersey City
Granelli, Humbert A., 213 Garden st., Hoboken
Greenberg, Philip, 1919 Boulevard, Jersey City
Greenberg, William B., 315 60th st., West New York
Greene, Albert D., 915 Palisade av., Union City
Greene, Robert F., 1504 Central av., Union City
Grieco, Emil H., 19 W. 22nd st., Bayonne
Grossman, Harold W., 2553 Boulevard, Jersey City
Grossman, Morris, 921 Bergen av., Jersey City
Grossman, Rubin, 377 Avenue C, Bayonne
Grubowski, Joseph N., 477 Jersey av., Jersey City
Gurland, Benjamin B., 146 W. 37th st., Bayonne
Gurley, Katharine A., 2671 Boulevard, Jersey City
Haggerty, Francis F., 724 Hudson st., Hoboken

Hall, Perry O., 35 Bentley av., Jersey City
Halligan, Earl J., 254 Montgomery st., Jersey City
Handler, Harry, 305 York st., Jersey City
Harter, Louis F., 174 Bowers st., Jersey City
Hartwell, H. Ameroy, 777 Boulevard, E., Weeh'wk'n
Harvey, John W., 818 Avenue C, Bayonne
Harz, William V., 880 Avenue C, Bayonne
Hasking, Arthur P., 318 Montgomery st., Jersey City
Hauptman, Harry, 88 Sherman pl., Jersey City
Heilbrunn, Julius, 2540 Boulevard, Jersey City
Hekimian, Jacob H., 2314 Palisade av., Weehawken
Herradora, Juan R., 2750 Boulevard, Jersey City
Higgins, John T., 145 Highland av., Jersey City
Higgins, Thomas A., 2616 Boulevard, Jersey City
Hillel, Joseph, 425 77th st., North Bergen
Hirsch, Solomon, 2553 Boulevard, Jersey City
Holland, Moses H., 2412 Palisade av., Weehawken
Hollywood, James L., 219 Danforth av., Jersey City
Horowitz, Alexander S., 4614 Boulevard, Union City
Horowitz, Leo, 3644 Boulevard, Jersey City
Howeth, John L., 14 Duncan av., Jersey City
Imhoff, John G., 913 Summit av., Jersey City
Introcaso, Dominick A., 45 Crescent av., Jersey City
Jacks, Oscar, 476 Mercer st., Jersey City
Jaffe, Benjamin, 566 Bergen av., Jersey City
Jaffin, Abraham E., 41 Emory st., Jersey City
Jaksch, Maria, 137 Arlington av., Jersey City
Jaques, J. Eugenia, 74 Waverly st., Jersey City
Jensen, Grover H., 130 Jewett av.. Jersey City
Jentz, John H., 67 Sherman pl., Jersey City
Johnson, Archie W., 169 Claremont av., Jersey City
Jones, Clement M., 454 Boulevard, Bayonne
Jones, J. Morgan, Valley rd., R.F.D., Oakland
Joseph, Benjamin M., 2771 Blvd., Jersey City
Judy, Kenneth H., 2741 Boulevard, Jersey City
Justin, Arthur W., 41 Fulton st., Weehawken
Kainer, Herbert, 4411 Boulevard, North Bergen
Kanengiser, Clifford H., 26 Gifford av., Jersey City
Kaplan, Herman B., 324 44th st., Union City
Katz, Jacob D., 38 Bentley av., Jersey City
Katz, Sidney, 8116 Boulevard, North Bergen
Kelly, Bernard S., 1954 Boulevard, Jersey City
Kemp, Norval F., 87 Sherman pl., Jersey City
Kiely, Eugene M., 800 Hudson st., Hoboken
Kimmel, M. Leonard, 3342 Boulevard, Jersey City
Klein, Julius, 2105 Palisade av., Union City
Kleiner, Charlotte A., 330 Crescent av., Leonia
Kolb, John M., 1611 Boulevard, North Bergen
Kook, Sol, 54 Grand pl., Arlington
Kooperstein, Samuel I., 191 Palisade av., Jersey City
Kornfield, Norman B., 52 Livingston av., Arlington
Kraemer, Samuel H., 309 Baldwin av., Jersey City
Kraut, Arthur M., 681 Bergen av., Jersey City
Kresch, Philip, 86 W. 34th st., Bayonne
Kuhlmann, Alvin E., 527 37th st., Union City
Kun, Bertram, 135 Belmont av., Jersey City
Kurtz, Geza R., 116 Fairview av., Jersey City
Lakiszak, Roman T., 162 Harrison av., Jersey City
Landshof, Charles A., 50 Glenwood av., Jersey Citv
Lane, Thomas F., 145 Garrison av., Jersey City
Lange, Louis C., 50 Clifton ter., Weehawken
Largay, Arthur O., 937 Avenue C, Bayonne
Lee, William A., 269 Jewett av., Jersey City
Leevy, Carroll M., 543 Bergen av., Jersey City
Lefkowitz, Jacob H., 445 64th st., West New York
Leir, J. Krevin, 2787 Boulevard, Jersey City
Lempke, Richard J., 3 Armstrong av., Jersey City
Lepis, A. Albert, 39 Bentley av., Jersey City
Leuzzi, Darwin A., 2515 Palisade av., Union City
Levine, G. Irving, 100 Bentley av., Jersey City
Levitov, Leo, 179 Wilkinson av., Jersey City
Lieberson, Leonard, 20 62nd st., West New York
Linden, Mortimer H., 45 Clendenny av., Jersey City
Lindroth, Lawrence V., 4525 Boulevard, N. Bergen
Lione, John G., 20 E. 32nd st., Bayonne
Lipshutz, Benjamin, 18 W. 22nd st., Bayonne
Lipshutz, Charles, 820 Avenue C, Bayonne
Lisanti, Gaetano, 6109 Monroe pl., West New York
Lobban, Robert B., 2595 Boulevard, Jersey City
LoBuono, Joseph, 228 60th st., West New York
London, Randolph A., 7615 Park av., North Bergen
Londrigan, Joseph F., 832 Bloomfield st., Hoboken
Londrigan, Joseph F., II, 832 Bloomfield st.,Hoboken
Long, Miles T., 2150 Boulevard, Jersey City
Luczynski, Edward W., 726 Avenue C, Bayonne
Lupin, Edward E., 930 Boulevard, Bayonne
Lynch, James F., 1947 Boulevard, Jersey City
Lynch, Roland J., Mental Diseases Hosp., Secaucus
Lynn, Irving I., 2760 Boulevard, Jersey City
Mackin, John J., 596 Bergen av., Jersey City
Madaras, John S., 870 Avenue C, Bayonne
Madison, L. Keith, 358 Pacific av., Jersey City
Mahoney, Francis W., 41 Crescent av., Jersey City
Malinowski, John, 554½ Jersey av., Jersey City
Manette, Milton, 535 41st st., Union City
Mangone, Edith, 174 Clinton av., Jersey City
Manno, Peter D., 843 Boulevard, Bayonne
Mansfield, Richard, 435 59th st., West New York
Marcus, Kurt, 85 Bowers st., Jersey City
Markowitz, Irwin B., 2157 Boulevard, Jersey City
Marrella, Louis F., 339 Pacific av., Jersey City
Marshall, Frank A., 2202 Palisade av., Weehawken
Marshall, Irving, 7 Tonnele av., Jersey City
Mastromonaco, Joseph D., 790 Avenue C, Bayonne
Mathesheimer, Jacob L., 280 Old Bergen rd., Jer.C'y
Matturri, Dominick A., 81 Gifford av., Jersey City
Maturi, Vincenzo E., 814 Boulevard, Bayonne
Maver, William W., 532 Bergen av., Jersey City
McCaffrey, Wallace T., 82 Highwood ter.,Weehawken
McCarron, James A., 727 Avenue C, Bayonne
McCarthy, John J., 1001 79th st., North Bergen
McGovern, Patrick J., 3284 Boulevard, Jersey City
McKeever, William J., 990 Summit av., Jersey City
McLean, Hugh A., 414 61st st., West New York
McLoughlin, Frank J., 558 Jersey av., Jersey City
McNenney, Claudio E., 113 Fairview av., Jersey City
Meehan, George E., 117 Mercer st., Jersey City
Meltsner, Louis, 904 Hudson st., Hoboken
Meyer, William, 2128 New York av., Union City
Meyerson, Noah, 428 59th st., West New York
Mickewich, Stephen A., 817 Avenue C, Bayonne
Miller, Max H., 311 60th st., West New York
Monica, Louis A., 875 Boulevard, Bayonne
Moriarty, John F., 723 Washington st., Hoboken
Moriey, Grace C., 1218 Hudson st., Hoboken
Morris, David G., 11 W. 26th st., Bayonne
Muccia, John J., 7 Tonnele av., Jersey City
Mueller, George H., 102 Summit av., Jersey City
Mulvihill, William J., 275 Boulevard, Bayonne
Murphy, James M., 2757 Boulevard, Jersey City
Murphy, Leo J., 1814 West st., Union City
Murphy, Patrick H. W., 27 Jefferson av., Jersey City
Murray, Joseph A., 765 Avenue C, Bayonne
Mustermann, Otto H., 303 48th st.. Union City
Mutter, Alfred A., 75 Beech st., Arlington
Nafash, Shafeek, 1117 16th st., North Bergen
Neals, Huerta C., 130 Atlantic st., Jersey City
Newman, Abraham J., 132 Manhattan av.. Jer. City
Nobile, James J., 913 Hudson st., Hoboken
Norton, James F., 58 Kensington av., Jersey City
O'Brien, John R., 174 Bowers st., Jersey City
Ockene, Abraham, 2415 Palisade av., Union City
O'Connor, John J., 2124 New York av., Union City
Oesterreicher, Desider, 427 Bergen av., Jersey City
O'Hanlon, George, Medical Center, Jersey City
Olpp, Arch. E., 1516 Bergenline av., Union City
Ortolano, James J., 911 Washington st., Hoboken
O'Shea, John J.. 2200 Palisade av., Weehawken
Oshrin, Henry, 7500 Bergenline av., North Bergen
O'Sullivan, John R., 11 Quincy av., Arlington

Pacicco, Michele, 609 Pavonia av., Jersey City
Padney, Edward V., 452 Jersey av., Jersey City
Pagliughi, John J., 1915 Palisade av., Union City
Pearlstein, Frank, 325 60th st., West New York
Penchansky, Samuel, 719 Avenue C, Bayonne
Penchansky, Samuel J., 847 Avenue C, Bayonne
Pentel, Louis S., 307 60th st., West New York
Perkel, Louis L., 2801 Boulevard, Jersey City
Perlberg, Harry J., 921 Bergen av., Jersey City
Perrone, Arthur F., 415 60th st., West New York
Piltz, George F., 153 69th st., Guttenberg
Pindar, Frederick S., 7500 Park av., Woodcliff
Pinks, David K., 895 Bergen av., Hoboken
Piskorski, Abdon V., 604 Jersey av., Jersey City
Plavin, Nathan J., 8010 Boulevard, North Bergen
Pontery, Herbert B., 89 Bowers st., Jersey City
Potter, Benjamin P., 821 Bergen av., Jersey City
Price, H. Preston, 317 Hamilton rd., Ridgewood
Prince, Samuel, 7702 Park av., North Bergen
Purdy, Charles H., 35 Highland av., Jersey City
Pyle, Louis A., 89 Fairview av., Jersey City
Quaglieri, Charles, 931 Washington st., Hoboken
Quigley, Frederic J., 543 45th st., Union City
Quinn, John J., 921 Bergen av., Jersey City
Raccuia, Vincent, 431 59th st., West New York
Raso, Frank L., 1218 Central av., Union City
Reilly, Raymond, 4912 Bergenline av., W. New York
Reingold, Alexander, 221 Garden st., Hoboken
Reznikoff, Leon, Hudson Co. Mental Hosp.,Secaucus
Rieman, Aloysius P., 3566 Boulevard, Jersey City
Rieman, Francis E., 3564 Boulevard, Jersey City
Riordan, John P., 40 Midland av., Arlington
Rosen, Charles E., 321 23rd st., Union City
Rosenberg, Albert B., 120 Crescent av., Plainfield
Rosenberg, Jacob, 692 Bergen av., Jersey City
Rosenstein, Jacob L., 568 Bergen av., Jersey City
Rosenthal, Alfred E., 79 West 32nd st., Bayonne
Rossi, John R., 119 W. 36th st., Bayonne
Rothberg, Moses, 438 59th st., West New York
Rother, Carl, 20 48th st., Weehawken
Rubenstein, Robert, 2758 Boulevard, Jersey City
Ruffer, Ralph A., 619 15th st., Union City
Rundlett, Emilie V., 79 Prospect st., Jersey City
Ruoff, Andrew C., 2414 New York av., Union City
Russell, David L., 690 Bergen av., Jersey City
Russillo, Philip, 155 Clerk st., Jersey City
Ruvane, Joseph J., 2787 Boulevard, Jersey City
Rydwin, Chester, 137 Grand st., Jersey City
Sabini, Cecil F., 603 Jefferson st., Hoboken
Sacco, Anthony G., 2200 New York av., Union City
Sachs, Fred, 48 Warner av., Jersey City
Sachs, Wilbert, 921 Bergen av., Jersey City
Sager, Harold, 19 W. 22nd st., Bayonne
Sakowski, John P., 20 W. 22nd st., Bayonne
Saladino, Anthony J., 427 15th st., Union City
Salmon, Edward F., 50 Gifford av., Jersey City
Salzmann, Bertold, Margaret Hague Hosp., Jer. City
Santangelo, Stephen, 461 Jersey av., Jersey City
Saradarian, Albert V., 921 Bergen av., Jersey City
Scala, H. Albert, 212 Garfield av., Jersey City
Schapiro, Morris, 800 Avenue C, Bayonne
Schenker, Benjamin N., 246 Fifth st., Jersey City
Schimenti, Matteo, 1883 Boulevard, Jersey City
Schlein, August, 707 Park av., Hoboken
Schneider, Harry M., 89 Gifford av., Jersey City
Schneider, Louis A., 412 61st st., West New York
Schorr, Herman E., 26 Lincoln Parkway, Bayonne
Schuchner, William F., 550½ Jersey av., Jersey City
Schuck, Traugott J., 58 Ninth st., Hoboken
Schwab, George P., 7914 Boulevard, North Bergen
Schwarz, Berthold T. D., 2787 Boulevard, Jersey City
Schwarz, Henry J., 8534 Boulevard, North Bergen
Schwarz, John, 83 Highwood ter., Weehawken
Scialli, Vincent A., 278 Fourth st., Jersey City
Sciarrillo, Louis F., 105 Newark st., Hoboken
Sciorsci, Mario, 609 Bloomfield st., Hoboken
Scott, John J., 6 Zerman pl., Weehawken
Scott, Samuel G., 141 Bergen av., Jersey City
Seligmann, Fred S., 501 32nd st., Union City
Shapiro, Edward E., 750 Avenue C, Bayonne
Shapiro, Nathaniel J., 212 Palisade av., Union City
Sheeran, Vincent J., 101 Bentley av., Jersey City
Sherman, Abraham, 68 Clifton ter., Weehawken
Shipman, Robert T., 907 Summit av., Jersey City
Shook, Benjamin E., 284 Bergen av., Jersey City
Shulman, Nathan L., 538 45th st., Union City
Siegel, Lester, 180 Belmont av., Jersey City
Silich, Robert L., 875 Boulevard, E., Weehawken
Silvera, Salomon, 532 Bergen av., Jersey City
Simeone, Peter A., 138 Clerk st., Jersey City
Simpson, David B., 9 East 35th st., Bayonne
Singer, Sina S., 3443 Boulevard, Jersey City
Sinnott, Gerald W., Medical Center, Jersey City
Smith, Meyer, 14 Webster av., Jersey City
Snyder, W. Jay, 74 Columbia ter., Weehawken
Solomon, Louis, 7 Tonnele av., Jersey City
Sottilaro, Joseph J., 1921 Boulevard, Jersey City
Spano, Frank, 320 47th st., Union City
Spath, William H., 722 Hudson st., Hoboken
Spohn, Eugene L., 16 Riverton dr., San Francisco, C.
Starr, Benjamin, 70 Sherman pl., Jersey City
Starr, Eli, 16 62nd st., West New York
Statile, Pasquale A., 598 Pavonia av., Jersey City
Stefansin, Frank, 1601 Boulevard, North Bergen
Stein, Albert, 600 80th st., North Bergen
Stein, Jacob M., 68 Columbia ter., Weehawken
Stockfisch, Robert H., 3637 Boulevard, Jersey City
Stokes, Anthony T., 819 First st., Secaucus
Stuart, William C., 1 Newark st., Hoboken
Sullivan, James A., 19 Kensington av., Jersey City
Sussman, Harold, 103 Tenth st., Hoboken
Sussman, Irvin, 241 E. Commerce st., Bridgeton
Swiney, Juliana C., 325 Avenue C, Bayonne
Swiney, Merrill A., III, 325 Avenue C, Bayonne
Taft, Herman L., 4401 Boulevard, North Bergen
Talty, John C., 935 Washington st., Hoboken
Tataryan, Hovsep, 2024 New York av., Union City
Temes, J. Howard, 9 Garrison av., Jersey City
Terwedow, Henry, 7707 Boulevard, North Bergen
Terwedow, Walter G., 518 79th st., North Bergen
Thomas, Ralph B., 793 Montgomery st., Jersey City
Tidwell, Harold F., 6101 Boulevard, E., W. New York
Tomaiuoli, Michele, 19 76th st., North Bergen
Trewhella, Arthur P., 376 Fairmount av., Jersey City
Troast, Leonard, 2801 Boulevard, Jersey City
Troum, Nathan, 82 Danforth av., Jersey City
Tsucalas, James C., 29 Highland av., Jersey City
Tyndall, Hugh H., 83 Highwood ter., Weehawken
Urevitz, Abraham, 2415 New York av., Union City
Utkewicz, Edmond A., 2633 Boulevard, Jersey City
Varriano, John L., 3263 Boulevard, Jersey City
Viscegila, Frank R., 430 74th st., North Bergen
Visconti, Joseph A., 105 Newark st., Hoboken
Vostrosablin, Nicholas A., 121 Grand st., Jersey City
Wager, Henry P., 39 Gifford av., Jersey City
Wallack, Eli A., 92 Fairview av., Jersey City
Waters, Edward G., 39 Gifford av., Jersey City
Watman, Anthony J., 2784 Boulevard, Jersey City
Weber, Laura E., 305 23rd st., Union City
Welsman, Herbert, 273 Avenue A, Bayonne
Weiss, Morris J., 734 Avenue C, Bayonne
Weston, Elaine, 40 Midland av., Arlington
Wheeler, James A. V., 85 VanReypen st., JerseyCity
White, Hugh M., 901 Summit av., Jersey City
White, Thomas J., 50 Glenwood av., Jersey City
Wilcox, Frank A., 329 60th st., West New York
Woltmann, Charles E., 805 Garden st., Hoboken
Woltz, Sidney, 2206 New York av., Union City

Yanowitz, Bernard, 165 Jewett av., Jersey City
Yeaton, William L., Jr., 204 11th st., Hoboken
Yontef, Reuben, 851 Avenue C, Bayonne
Yudkoff, William, 770 Avenue A, Bayonne
Zampella, Arthur, 921 Bergen av., Jersey City
Zbar, Joseph E., 2690 Boulevard, Jersey City
Zitani, Alfred M., 937 Washington st., Hoboken
Zuckerberg, Irving, 800 Avenue C, Bayonne

HUNTERDON COUNTY (10)

Society organized June 12, 1821. Meets on fourth Tuesday of January, April, July, and October, April being the Annual Meeting.

ACTIVE MEMBERS

Baker, Philip W., High Bridge
Bambara, Aurelius J., Flemington
Beatty, Hannah J., Clinton Farms, Clinton
Boyer, Charles G., Annandale
Christensen, Alexander H., Lebanon
Clark, Frank G., White House Station
Coleman, Austin H., Clinton
Ctibor, Vladimir F., Califon
Dantzig, Henry, 12 S. Franklin st., Lambertville
Davidson, Henry A., R. D. 2, Flemington
Decker, Frederick H., Frenchtown
Felder, Samuel, 221 Main st., Flemington
Fluck, Paul H., 73 N. Union st., Lambertville
Fritz, John F., Jr., 95 Main st., Flemington
Fuhrmann, Barclay S., 10 Main st., Flemington
Fuhrmann, John B., 10 Main st., Flemington
Germain, Raymond J., Clinton
Hamilton, Lloyd A., 46 York st., Lambertville
Harps, James A., 72 Center st., Clinton
Henry, George, 33 Mine st., Flemington
Jenkins, Arthur M., 701 Harrison st., Frenchtown
Knox, Howard A., New Hampton
Lane, Edgar W., 46 Main st., Bloomsbury
Leaver, Morris H., Quakertown
Looloian, Mehran W., White House Station
McCorkle, William E., Ringoes
Merrill, Edwin D., Milford
Simon, Fritz C., Hampton
Smith, Joseph A., N. J. Sanatorium, Glen Gardner
Tompkins, Grenelle B., 52 Broad st., Flemington

HONORARY MEMBER

Sommer, George N. J., Trenton

MERCER COUNTY (11)

Society organized May 23, 1848. Meets on second Wednesday of each month except July, August, and September, at 9:00 p. m., in the State Society Headquarters, Trenton. Annual Meeting in December. Annual Banquet in November.

ACTIVE MEMBERS

Abey, William J. H., 65 S. Main st., Pennington
Abrams, Henry, 195 Nassau st., Princeton
Ackley, David B., 21 N. Clinton av., Trenton
Albert, Perry, 2780 S. Broad st., Trenton
Apple, Stanley B., 1520 Brunswick av., Trenton
Applestein, Robert, 568 E. State st., Trenton
Aronis, Harry R., 935 W. State st., Trenton
Ashley, Harmon H., 20 Nassau st., Princeton
Austin, Henry J., 96 Bellevue av., Trenton
Barlow, John D., 232 Stockton st., Hightstown
Barry, R. Grant, 908 W. State st., Trenton
Bayne, Joseph K., Army
Beairsto, Everett B., 224 W. State st., Trenton
Belfer, Jacob J., 1235 Chambers st., Trenton
Belford, Ralph J., 90 Nassau st., Princeton
Bellis, Horace D., 437 E. State st., Trenton
Bennett, Robert E., N. J. State Hospital, Trenton
Bergsma, Daniel, State Health Dept., Trenton
Berman, Jacob J., 409 Market st., Trenton
Bernstein, Bertram, 35 Boudinot st., Trenton
Berry, Leonard M., 205 Nassau st., Princeton
Bird, Ivan F., 565 Emmett av., Trenton
Blackwell, Enoch, 28 W. State st., Trenton
Blaugrund, Samuel, 833 W. State st., Trenton
Bonnet, W. Laurence, 2791Not'gham way,Mercerv'le
Borrella, Dominic D., 476 Hamilton av., Trenton
Burbidge, J. Raymond, 10 Bayard lane, Princeton
Burns, Joseph R., 254 S. Olden av., Trenton
Burroughs, Charles W., 32 Palmer lane, Trenton
Burroughs, Edmund W., 701 W. State st., Trenton
Byer, M. Yale, 442 Greenwood av., Trenton
Carabelli, A. Albert, 306 Hamilton av., Trenton
Carroll, C. Walter, 125 Centre st., Trenton
Carroll, William V., 211 Academy st., Trenton
Cella, Charles F., 359 Hamilton av., Trenton
Chandler, Swithin, Jr., 4273 S. Broad st., Yardville
Charleroy, Durant K., 935 Greenwood av.. Trenton
Chesner, William A., 1111 Hamilton av., Trenton
Chianese, C. Chester, 464 Hamilton av., Trenton
Christian, Elizabeth I., Station A, Trenton
Clark, Alice L., 206 W. State st., Trenton
Clement, John B., 178 W. State st., Trenton
Clunan, Ambrose P., 851 Hamilton av., Trenton
Cohan, Charles C., 217 W. Hanover st., Trenton
Cohan, Joseph, 217 W. Hanover st., Trenton
Cohen, Herman, 1301 Hamilton av., Trenton
Cohen, William, 1007 Greenwood av., Trenton
Colavita, James J., 433 Princeton av., Trenton
Comfort, John B., 50 S. Clinton av., Trenton
Commini, Frank F., 439 Bellevue av., Trenton
Cone, Thomas E., Jr., 108 N. Stanworth dr.,Princeton
Corlo, George A., 307 S. Clinton av., Trenton
Corrigan, Patrick H., 1720 S. Broad st., Trenton
Cottone, R. John, 683 Princeton av., Trenton
Cowlbeck, H. Donald, 224 W. State st., Trenton
Cox, Harold C., 208 Stockton st., Hightstown
Crane, Warren E., 974 S. Broad st., Trenton
Davenport, Irwin P., 545 W. State st., Trenton

Davis, Harold L., 178 W. State st., Trenton
Davis, John E., Jr., 211 Linden st., Riverton
Dean, Guy K., Jr., Princeton rd., Plainsboro
Deitz, Joseph R., 320 Centre st., Trenton
Denelsbeck, J. Otis, 878 E. State st., Trenton
Dimun, John T., 1000 S. Broad st., Trenton
Dodge, James T., 1819 S. Broad st., Trenton
Doranz, Harold K., 502 W. State st., Trenton
Drezner, Henry L., 216 W. State st., Trenton
Eames, William N., 1871 Pennington rd., Trenton
Eckstein, David, 407 Greenwood av., Trenton
Edwards, Walter R., 2624 Quaker Br. rd.,Mercerville
Elias, Elmer J., 474 Greenwood av., Trenton
Ellis, Ralph W., 64 Fairview av., Morrisville, Pa.
English, Harrison F., III, 160 W. State st., Trenton
Ernest, Richard B., 240 W. State st., Trenton
Fabian, Paul L., 520 Princeton av., Trenton
Farmer, Walter D., 28 S. Main st., Allentown
Fessler, A. James, 1544 S. Broad st., Trenton
Fine, Sydney G., 868 Stuyvesant av., Trenton
Finegan, Paul J., 200 W. State st., Trenton
Finkle, Lester J., 495 W. State st., Trenton
Fiorello, Joseph R., 689 Princeton av., Trenton
Fluck, David A., 626 W. State st., Trenton
Forer, Robert, 434 Bellevue av., Trenton
Franklin, Charles M., 56 Elm rd., Princeton
Franzoni, Andrew E., 938 Brunswick av., Trenton
Friedman, Max, 849 W. State st., Trenton
Friedman, Meyer H., 949 W. State st., Trenton
Friedmann, Leonard L., 484 Princeton av., Trenton
Frisch, Felix, 726 W. State st., Trenton
Frosch, Frank J., 1423 Pennington rd., Trenton
Fuchs, Jacob N., 1267 S. Broad st., Trenton
Garber, Robert S., N. J. State Hospital, Trenton
Gardiner, Muriel M., Brookdale Farm, Pennington
Garfinkel, Abraham, 1801 Greenwood av., Trenton
Garwood, Norman W., Main st., Crosswicks
Gian-Grasso, Joseph A., 971 S. Broad st., Trenton
Gindhart, Floyd D., 1233 Hamilton av., Trenton
Gindhart, John H., 1233 Hamilton av., Trenton
Goldberg, Benjamin M., 1156 E. State st., Trenton
Goldman, Leo L., 325 Market st., Trenton
Goyne, James B., 2785 Main st., Lawrenceville
Graham, Ernest E., 66 Clark av., Somerville
Granger, James R., 235 Spring st., Trenton
Gribbin, James A., 836 W. State st., Trenton
Guglielmelli, Angelo D., 449 Hamilton av., Trenton
Hafetz, M. Morris, 114 Centre st., Trenton
Haggerty, D. Leo, 227 N. Warren st., Trenton
Hammell, Frank M., 137 S. Main st., Allentown
Haney, John J., 850 Hamilton av., Trenton
Harman, J. Reginald, 824 W. State st., Trenton
Hess, George A., Titusville
Hiden, Joseph C., 199 Nassau st., Princeton
Hirschfield, Bernard A., 375 W. State st., Trenton
Hofbauer, Ernest, 695 Parkway av., Trenton
Horhovitz, George I., 324 S. Broad st., Trenton
Hunter, Floyd D., 3620 Nottingh'm way,HamiltonSq.
Hutchinson, A. Dunbar, 913 W. State st., Trenton
Hutchinson, Geo. F., 55 Mercer st., Hamilton Square
Irmisch, George W., 375 W. State st., Trenton
James, J. Thomas, 45 Vandeventer av., Princeton
Jaspan, Samuel C., 820 Division st., Trenton
Johnson, John F., 926 W. State st., Trenton
Kandle, Roscoe P., 20 Edgemere av., Trenton
Kaplan, Harry, 186 W. State st., Trenton
Katzenbach, C. Buckman, 415 W. State st., Trenton
Klempner, Paul, 637 Greenwood av., Trenton
Kline, Joseph J., 733 Hamilton av., Trenton
Knauer, Charles H., Jr., 214 W. State st., Trenton
Kohn, Joseph J., 201 Broad St. Bank Bldg., Trenton
Kohn, Ralph B., Westbrook Jr. Col., Portland, Maine
Kondor, Joseph S., 978 S. Broad st., Trenton
Koplin, Nathaniel H., 142 W. State st., Trenton
Kren, Frank, 718 W. State st., Trenton
Kustrup, John F., 1418 S. Broad st., Trenton
Lapin, Louis P., 15 Crosswicks st., Bordentown
Lapin, Mathew R., 628 W. State st., Trenton
Larsson, Evert A., N. J. State Hospital, Trenton
Laufenberg, Joseph W., 1544 S. Broad st., Trenton
Lavine, Barney D., 630 N. Clinton av., Trenton
Lavine, Sidney B., 144 W. State st., Trenton
Ledden, Lewis J., 1104 Hamilton av., Trenton
Leshin, Harry, 564 S. Main st., Hightstown
Lettiere, Anthony J., 425 E. State st., Trenton
Levy, Irvin, 222 W. State st., Trenton
Lewis, Sydney B., 194 W. State st., Trenton
Light, Arthur B., Lawr'ceville Sch'l, Lawrenceville
Lloyd, Samuel J., 178 W. State st., Trenton
Lynch, Cornelius G., River rd., Yardley, Pa.
Lynch, Donald C., 885 Stuyvesant av., Trenton
MacDermid, Lynden E., 506 Farnsw'th av.,Bordent'n
Magee, Harold S., N. J. State Hospital, Trenton
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Mains, M. Paul, Mercer Hospital, Trenton
Majeski, Henry J., 930 Brunswick av., Trenton
McCarthy, William P., 1203 Parkside av., Trenton
McCormack, Raymond A., 873 Bellevue av., Trenton
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Miller, Earle K., 2512 Nottingham way, Trenton
Miller, Gerald H., N. Main st., Cranbury
Miller, Raymond E., 192 W. State st., Trenton
Miller, Reginald C., 1420 Greenwood av., Trenton
Miller, Samuel R., 407 S. Main st., Pennington
Minschwaner, Geo. G., Jr., 832 Greenw'd av.,Trenton
Mitchell, Charles H., 1100 W. State st., Trenton
Mitskas, Theo. V. J., 1329 Greenwood av., Trenton
Moore, J. Leonard, 59 Westcott rd., Princeton
Moore, William J., 10 N. Olden av., Trenton
Moriconi, Albert F., 438 Hamilton av., Trenton
Mountford, William E., 217 N. Warren st., Trenton
Munro, Jeannette, 2 Queenston pl., Princeton
Murphy, James A., 312 Bellevue av., Trenton
Murto, Thomas V., 117 Buckingham av., Trenton
Nayfield, Ronald C., 990 S. Broad st., Trenton
Nonziato, Frank A., 50 Centre st., Trenton
Ogden, Andrew E., 1829 Greenwood av., Trenton
O'Neill, Joseph F., 41 E. Broad st., Hopewell
O'Rourke, James J., 871 Stuyvesant av., Trenton
Pantaleone, Joseph, 504 Hamilton av., Trenton
Parker, Paul, 72 N. Clinton av., Trenton
Pepe, Salvatore A., 638 Perry st., Trenton
Pessel, Johannes F., 224 W. State st., Trenton
Peterson, Walter R., 312 W. State st., Trenton
Pierson, Carl L., 395 W. State st., Trenton
Pierson, Joseph R., 10 E. Broad st., Hopewell
Pinerman, Robert B., 539 W. State st., Trenton
Pittman, Allen R., N. J. State Hospital, Trenton
Pollard, William E., 194 Nassau st., Princeton
Potter, Ellen C., 301 W. State st., Trenton
Powis, Ethel M., 845 W. State st., Trenton
Poyas, Morton L., 730 W. State st., Trenton
Preece, John D., 192 W. State st., Trenton
Proctor, Francis E., 332 W. State st., Trenton
Prunetti, Carmen, 311 Chestnut av., Trenton
Purcell, Ernest F., 800 Stuyvesant av., Trenton
Quackenbos, Harrie M., State Colony, Lynchburg, V.
Rachunis, Michael, Fifth & Riverside avs., Roebling
Ragany, Joseph, VA Hospital, Wilmington, Del.
Rainey, Willard G., 34 Bayard lane, Princeton
Rampona, Joseph M., 272 Nassau st., Princeton
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Resnick, Nathan, 205 Market st., Trenton
Rita, James J., 235 S. Clinton av., Trenton

Robinson, Aaron J., 1757 S. Broad st., Trenton
Robinson, Irving W., 835 W. State st., Trenton
Rogers, Laurence H., Donnelly Mem. Hosp., Trenton
Rose, William G., 232 Stockton st., Hightstown
Rosso, John D., 194 Nassau st., Princeton
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Rowan, Henry M., 224 W. State st., Trenton
Sackin, Stanley, 834 W. State st., Trenton
Sacks-Wilner, Arthur, 225 W. State st., Trenton
Sacks-Wilner, Erwin P., 225 W. State st., Trenton
Salvatore, Joseph T., 324 Hamilton av., Trenton
Salway, Benjamin, 321 S. Broad st., Trenton
Scasserra, Benedict B., 163 Nassau st., Princeton
Schildkraut, Jacob M., 170 W. State st., Trenton
Schnur, Bernard, 731 W. State st., Trenton
Schwager, Alfred J., Mercer Hospital, Trenton
Seely, Roy B., 104 N. Clinton av., Trenton
Seitzick-Robbins, H. E., 723 W. State st., Trenton
Sekerak, Albert J., 984 S. Broad st., Trenton
Sharbaugh, George B., 212 W. State st., Trenton
Shear, M. Murray, 1158 E. State st., Trenton
Sica. L. Samuel, 431 E. State st., Trenton
Siemion, Theophilis R., 1005 Brunsw'k av., Trenton
Silver, E. Drew, 136 Stockton st., Hightstown
Slack, Clarence J., 230 W. State st., Trenton
Smith, B. Earl, 1017 Greenwood av., Trenton
Smith, DeWitt H., 194 Nassau st., Princeton
Smith, Frank W., 1238 S. Clinton av., Trenton
Smith, Percy L., West Afton av., Yardley, Pa.
Snegireff, Leonid S., 540 Parkway av., Trenton
Sollami, William R., 2331 S. Broad st., Trenton
Sommer, George N. J., 120 W. State st., Trenton
Sommer, George N. J., Jr., 120 W. State st., Trenton
Spradley, Jeems B., 395 W. State st., Trenton
Stabile, John A., Grand av., West Trenton
Stein, Louis A., 226 W. State st., Trenton
Storaci, Frank S., 715 Hamilton av., Trenton
Straus, Walter, 1239 Greenwood av., Trenton
Sullivan, James M., III, 88 Spring st., Trenton
Summers, Alfred D., 71 Palmer sq., Princeton
Sutnick, Theodore B., 25 Richey pl., Trenton
Swern, Nathan, 399 W. State st., Trenton
Taylor, Earl S., 18 Stockton pl., Princeton
Tenney, Luman H., 177 Prospect av., Princeton
Thurm, Arthur S., 225 W. State st., Trenton
Tomec, Otto C., 756 Parkway av., Trenton
Treiber, Benjamin A., 219 W. State st., Trenton
Tretter, Hans L., 501 W. State st., Trenton
Turner, Rodney C., 609 Greenwood av., Trenton
Urbaniak, Henry S., 883 Brunswick av., Trenton
Vaczi, Stephen, 983 S. Broad st., Trenton
Vanneman, Joseph S., 45 Princeton av., Princeton
Vento, Sebastian J., 452 Hamilton av., Trenton
Vine, Blair, 1437 S. Broad st., Trenton
Vol-Tretter, Marta, 501 W. State st., Trenton
Waldron, Edward L., 910 Stuyvesant av., Trenton
Walsh, Thomas J., Barnes H., Vancouver, Wash.
Warter, Peter J., 717 W. State st., Trenton
Waters, Charles H., 928 W. State st., Trenton
Watov, Samuel E., 178 W. State st., Trenton
Watts, Wilbur, 436 E. State st., Trenton
Wayman, Bernard R., 1100 S. Broad st., Trenton
Wiesler, Howard M., Drawer N, Trenton
Wikoff, John L., 799 Pennington av., Trenton
Williams, Harry D., 829 W. State st., Trenton
Williams, Paul T., 626 Perry st., Trenton
Wilson, Joseph G., 560 Rutherford av., Trenton
Witman, H. John, Jr., 526 N. Clinton av., Trenton
Wittenborn, William F. J., 1635 Brunsw'k av.,Tr'nt'n
Wolff, Herbert M., 942 W. State st., Trenton
Yazujian, Levon D., 562 E. State st., Trenton
York, Wilbur H., Box 110, Princeton
Zeltmacher, Kurt, 306 W. State st., Trenton
Zimskind, Joshua N., 210 W. State st., Trenton

ASSOCIATE MEMBERS

Brenna, Joseph D., 448 Hamilton av., Trenton
Buford, Charles C., Jr., 507 S. Warren st., Trenton
Burell, Vincent A., 108 Darwin av., Rutherford
Coleman, William H., 140 Roxboro rd., Trenton
Cytowic, Edmund R., 883 Brunswick av., Trenton
de Blois, Joseph A., Jr., Naval Air Station,Lakehurst
Fasanella, Rocco, P. O. Box 1001, New Haven, Conn.
Fedor, John A., 969 S. Broad st., Trenton
Freund, Seelig, 617 W. State st., Trenton
Greeley, David McL., 245 Nassau st., Princeton
Hardin, Edmund B., 13 Summit av., Trenton
Haslam, Herbert M., Peddie School, Hightstown
Marshall, John F., 129 Perry st., Trenton
McConville, Edward B., 1213 Hamilton av., Trenton
Philo, Seymour S., 849 Hamilton av., Trenton
Podkul, Theodore, 883 Brunswick av., Trenton
Purcell, Ernest F., Jr., 2630 Not'gh'm Way,M'rc'v'le
Robinson, Douglas H., N. J. State Hosp., Trenton
Seely, Richard H., 902 N. Penn. av., Morrisv'le, Pa.
Selecky, Medard A., 35 S. Main st., Allentown
Shepp, Murray, 21 Runyon Circle, Trenton
Topley, Howard E., Jr., 25 Columbia av., Trenton

EMERITUS MEMBERS

Davison, Royden W., Miami, Florida
Fell, Alton S., Trenton
Harman, William J., Trenton
MacFarland, Burr W., Trenton
Sill, John B., Yardley, Pa.
Turner, Irvine F. P., Titusville

MIDDLESEX COUNTY (12)

Society organized June 11, 1816. Meets on the third Wednesday of each month, October to June, inclusive. Annual Meeting in December.

ACTIVE MEMBERS

Adler, Howard E., 103 Livingston av., New Bruns'k
Adler, Lydia, 103 Livingston av., New Brunswick
Anderson, John F., 195 College av., New Brunswick
Avery, Philip S., Woodland ter., Bound Brook
Balogh, William A., 315 Dunellen av., Dunellen
Barbano, Alfred J., 225 Hale st., New Brunswick
Barnhardt, Russell A., 10 Deerfield rd., Parlin
Bassett, Lavern C., 320 New Market rd., Dunellen
Becker, Meyer, 219 Amboy av., Metuchen
Becker, Sidney D., 140 Maple pl., Keyport
Belafsky, Henry A., 150 Green st., Woodbridge
Berkow, Bori, 245 State st., Perth Amboy
Berkow, Samuel G., 280 Hobart st., Perth Amboy
Borrus, Joseph C., 105 Carroll pl., New Brunswick

Bowman, Ned O., 1001 Georges rd., New Brunswick
Boyer, Philip A., Jr., Roosevelt Hospital, Metuchen
Breslow, Samuel, 157 Market st., Perth Amboy
Brezinski, Edward J., 308 Washington st., P. Amboy
Bristol, Frank E., II, Main st., Dayton
Brody, Morton S., 67 Paterson st., New Brunswick
Brown, Chester T., 102 N. Sixth av., Highland Park
Brown, Milton B., 72 Roosevelt av., Carteret
Burnett, Charles B., 109 Main st., South River
Calvin, Charles H., 80 Commerce st., Perth Amboy
Cannata, Benjamin, 113 Market st., Perth Amboy
Church, Charles F., 192 College av., New Brunswick
Clarke, Francis M., 116 New st., New Brunswick
Clinton, James, 196 Sixth st., Bridgeport, Conn.
Cole, Nathaniel B., 104 Market st., Perth Amboy
Cooper, Irving J., 419 George st., New Brunswick
Cooperman, Eli L., 527 New Brunswick av., Fords
Copleman, Benjamin, 280 Hobart st., Perth Amboy
Copleman, Hyman B., 111 Liv'gst'n av.,NewBruns'k
Cottrell, Judson G., 159 Market st., Perth Amboy
Cowen, Mortimer I., 1330 Oak Tree rd., Iselin
Degenhardt, Ira H., 114 S. First st., Highland Park
Dieker, Howard E., 78 Main st., South River
Downing, Perley E., N. J. State Hospital, Trenton
Downs, Louis S., 164 Pershing av., Carteret
Dunham, Malcolm M., 88 Grove av., Woodbridge
Duschock, Edward F., 473 Amboy av., Perth Amboy
Eulner, Elmer H., 216 Henry st., South Amboy
Fanelli, Antonio, 494 Compton av., Perth Amboy
Faulkingham, Ralph J., 61 Liv'gst'n av.,NewBr'ns'k
Fazio, Vincent J., 227 Augusta st., South Amboy
Feher, Ladislas A. M., 177 Somerset st., NewBr'ns'k
Fine, Hyman P., 151 Market st., Perth Amboy
Fine, Irvin J., Hobart Bldg., Perth Amboy
Finnegan, William R., 153 Somerset st., N. Brunsw'k
Fishkoff, Alexander H., 132 Market st.,Perth Amboy
Forney, Norman N., 94 N. Main st., Milltown
Forney, Norman N., Jr., Stelle av., Milltown
Freeman, William S., 117 N. Third av., Highland Pk.
Friedenthal, Bernard, 88 Livingston av.,NewBr'ns'k
Gadek, Stanley A., 95 Fayette st., Perth Amboy
Gadek, William V., 215 High st., Perth Amboy
Gerard, Arpad G., 502 Rahway av., Woodbridge
Gessner, Gerard R., 159 New st., New Brunswick
Glasser, Benjamin F., 32 Lindon av., Highland Park
Goldberg, Isidore, 303 N. Washington av., Dunellen
Goldman, Solomon, 161 Livingston av., New Br'ns'k
Gorog, Nicholas M., 159 Bayard st., New Brunswick
Gould, Louis F., 95 Market st., Perth Amboy
Greenwood, William R., Rensselaer, Indiana
Grossman, Walter, 77 Livingston av., N. Brunswick
Gurshman, Sol., 280 Amboy av., Metuchen
Gutowski, Joseph M., 433 Brace av., Perth Amboy
Hamburg, Meyer M., 60 N. Sixth av., Highland Pk.
Hauber, Eugene A., 198 Washington rd., Sayreville
Haywood, Henry, 49 Paterson st., New Brunswick
Henry, Frank C., Jr., 214 Smith st., Perth Amboy
Hesseltine, Clair E., 305 Main st., South Amboy
Hilker, George F., 258 Maple st., Perth Amboy
Hofer, Clarence J. M., 463 Main st., Metuchen
Hoffman, Charles W., 226 David st., South Amboy
Hoffman, Florentine M., 91 Bayard st., New Bruns'k
Howell, E. Gaylord, 120 New st., New Brunswick
Howley, Barth, Jr., 67 Livingston av., New Brunsw'k
Hunt, Melvin M., 140 Jackson st., South River
Hurtado, Edward, 763 Audrey dr., Rahway
Hutner, Cyril I., 134 Grove av., Woodbridge
Idelcowitz, Marie, 123 Main st., South River
Jacobson, Benjamin D., 187 Liv'gst'n av.,N.Br'nsw'k
Jacobson, Murray B., 137 Market st., Perth Amboy
Kant, Emanuel R., 240 High st., Perth Amboy
Karshmer, Nathan, 92 Carroll pl., New Brunswick
Kemeny, Imre, 48 Pulaski av., Carteret
Kleiber, Estelle E., 131 Livingston av.,NewBrunsw'k
Klein, Edward F., 136 Market st., Perth Amboy
Klein, William, 85 Bayard st., New Brunswick
Kler, Joseph H., 151 Livingston av., New Brunswick
Koelsch, Frederick J., 14 Kirkpatrick st.,NewBr'ns'k
Koenig, Robert E., Sedgwick st., Jamesburg
Kohut, George J., 436 Amboy av., Perth Amboy
Krafchik, Louis L., 158 Livingston av., N. Brunswick
Kramer, Bernard M., 254 State st., Perth Amboy
Kramer, Samuel E., 254 State st., Perth Amboy
Kunderman, Philip J., 215 Harper st., Highland Pk.
Lang, Joseph, 111 Market st., Perth Amboy
Lang, Joseph T., 115 Main st., South River
Lavine, Samuel C., 502 Georges rd., New Brunswick
Lazow, S. Manlius, 199 Main st., Matawan
Leonard, George F., 63 N. Fifth av., Highland Park
Leonard, Martha F., 55 N. Fifth av., Highland Park
Levinson, Reuben, 123 Market st., Perth Amboy
Lewis, Collins E., 219 Seaman st., New Brunswick
Lief, Lawrence H., Gatzmer av., Jamesburg
Lind, Zoltan H., 215 Livingston av., New Brunswick
London, Isabel M., 103 N. Fourth av., Highland Pk.
London, William, 255 State st., Perth Amboy
Long, Pauline A., 22 Livingston av., New Brunswick
Lucey, James J., 184 Market st., Perth Amboy
Lutz, Martin H., 130 W. Fifth av., Roselle
Mangogna, Philip, 334 Barclay st., Perth Amboy
Mann, Jacob J., 255 State st., Perth Amboy
Margaretten, Edward I., 280 Hobart st., PerthAmb'y
Marino, Benjamin, 14 Llewellyn pl., N. Brunswick
Mark, Joseph S., 102 Green st., Woodbridge
Marvin, Dorothy H., 51 Livingston av., New Br'sw'k
McCormick, Wm. H., Jr., 266 Market st., P'thAmboy
McGovern, John F., Jr., 24 Liv'gst'n av.,NewBr'ns'k
McKiernan, Robert L., 75 Livingston av.,N.Brunsw'k
McKinstry, John W., Railroad av., Jamesburg
Meinzer, Martin S., 147 Market st., Perth Amboy
Messinger, Samuel, 31 Roosevelt av., Carteret
Miller, S. David, 90 Carroll pl., New Brunswick
Moolten, Sylvan E., 103 N. Fourth av., Highland Pk.
Morgenstern, Mates, 341 George st., N. Brunswick
Morris, Carlyle, Spring street, Metuchen
Nafey, Herbert W., 51 Livingston av., NewBrunsw'k
Nauity, Chas. W., Jr., 403 High st., Perth Amboy
Nieman, Solomon Z., 191 Livingston av., NewBr'ns'k
Niemiera, Alexander K., 509 State st., P. Amboy
Normand, Alphonse F., 267 High st., Perth Amboy
O'Conneli, James J., 116 Livingston av., NewBr'ns'k
Panigrosso, Louis R., 455 Lawrie st., Perth Amboy
Pansy, Abraham A., 12 Jackson st., South River
Pellicane, Anthony J., 183 Liv'gst'n av., New Br'ns'k
Perillo, Louis, 638 Amboy av., Perth Amboy
Pickar, Gabriel, 205 N. Second av., Highland Park
Putter, Eric, 180 N. Main st., Milltown
Racz, George, 22 Hardenberg st., New Brunswick
Reason, John J., 612 Roosevelt av., Carteret
Reitman, Norman, 155 Livingston av., New Brunsw'k
Rineberg, Irving E., 137 Livingston av., NewBr'ns'k
Romano, Frank, 207 Front st., Dunellen
Rona, Maurice, 10 Kirkpatrick st., New Brunswick
Rosenberg, Norman, 10 Lincoln av., Highland Park
Rothfuss, C. Howard, 574 Rahway av., Woodbridge
Rothschild, Karl, 149 Livingston av., New Brunsw'k
Rowland, John H., 159 New st., New Brunswick
Rubin, William, 105 Carroll pl., New Brunswick
Runyon, Laurence P., 80 Somerset st., New Bruns'k
Salaky, William L., 387 Neville st., Perth Amboy
Sandella, Joseph F., 138 Livingston av., N. Brunsw'k
Scalera, John F., 28 S. Plainfield av., S. Plainfield
Schirber, Rene G., 6 Kirkpatrick st., New Brunsw'k
Scott, Frederick W., 103 Bayard st., New Brunswick
Sender, Fannie, 193 Main st., South River
Shangold, Jack E., 280 Hobart st., Perth Amboy
Shayevitz, Abraham S., 102 Main st., South River
Sherman, W. Edgar, 7 Livingston av.,NewBrunsw'k
Shuli, John V., 184 Kearny av., Perth Amboy
Siegel, Ralph E., 111 Market st., Perth Amboy

Silber, Irving M., 94 Schureman st., New Brunswick
Silk, Charles I., 236 High st., Perth Amboy
Slobodien, Benjamin F., 233 High st., Perth Amboy
Smith, Ivan B., Georges rd., Dayton
Smith, John A., 106 Main st., South River
Smith, John V., 463 State st., Perth Amboy
Smith, Marshall, 62 Bayard st., New Brunswick
Smith, Sydney F., 402 Raritan av., Highland Park
Sokoloff, Oscar J., 69 Paterson st., New Brunswick
Spencer, Ira T., 152 Main st., Woodbridge
Spritzer, Theodore D., 102 S. Wash'gt'n av.,Dunellen
Stein, William, 177 Livingston av., New Brunswick
Stollman, Bernard D., 21 John st., New Brunswick
Sullivan, Chas. J., 57 Paterson st., New Brunswick
Szuch, Nicholas, 159 Main st., South River
Taber, Frederick S., 55 Paterson st., N. Brunswick
Thompson, Thomas M., Box 314, R.D. 3, N. Brunsw'k
Tisch, Leon, 28 S. Third av., Highland Park
Toy, Calvert R., 22 Kirkpatrick st., New Brunswick
Tucker, Sidney, 211 Madison av., Perth Amboy
Tyrrell, George W., 380 State st., Perth Amboy
Uhr, Jacques S., 127 Livingston av., New Brunsw'k
Ulan, Jerome, Main st., Spotswood
Urbanski, Matthew F., 148 Market st., Perth Amboy
Van Mater, John S., 61 Livingston av., N. Brunswick
Vargyas, Joseph C., 116 New st., New Brunswick
Walker, Otto, 198 Pershing av., Carteret
Walker, Robert B., 108 Church st., New Brunswick
Walters, George M., 158 Main st., Woodbridge
Wantoch, Joseph, 14 Carteret av., Carteret
Weber, John F., 264 Main st., South Amboy
Weiner, Henry T., 280 Hobart st., Perth Amboy
Wetterberg, Louis F., 74 Grove av., Woodbridge
White, Harry J., Roosevelt Hospital, Metuchen
Wiesenfeld, Paul, 138 Market st., Perth Amboy
Wilentz, William C., 188 Market st., Perth Amboy
Winn, James S., 51 Livingston av., New Brunswick
Winn, William M., 128 Broad st., Perth Amboy
Witmer, John D., 456 Middlesex av.. Metuchen

ASSOCIATE MEMBERS

Benko, George, 266 High st., Perth Amboy
Bielski, Johannes F., 180 Somerset st., N. Brunswick
Boogdanian, Victor H., 316 George st., N. Brunswick
Budnicki, Xavier B., 105 Broad st., Perth Amboy
Dern, Samuel M., 444 School st., Woodbridge
Dwulet, Leon, State Home for Boys, Jamesburg
Frederick, George F., 179 Main st., Woodbridge
Gadek, Raymond J., 27 Burchard st., Fords
Ittleman, William S., 307 N. Wash'gton av.,Dunellen
Jasionowski, Edward, 121 Main st., Sayreville
Jones, Kenneth, 175 Smith st., Perth Amboy
Kluft, Jack M., 280 Hobart st., Perth Amboy
Novak, Edward J., 61 Green st., Woodbridge
Paret, Frank L., 108 Church st., New Brunswick
Sadoff, Irvin E., 163 New st., New Brunswick
Schiller, Max, 159 New st., New Brunswick
Urban, George J., Jr., 40 Egan st., Fords

HONORARY MEMBERS

Burnett, Charles B., South River
Henry, Frank C., Perth Amboy
Spencer, Ira T., Woodbridge
Tyrrell, George W., Perth Amboy
Vorhees, Howard C., New Brunswick

MONMOUTH COUNTY (13)

Society organized July 24, 1816. Meets on fourth Wednesday of each month from September to June, inclusive. Annual Meeting in April.

ACTIVE MEMBERS

Adler, Samuel, 229 Broad st., Red Bank
Albright, Louis F., 118 Madison av., Spring Lake
Altschul, Frank J., 177 Garfield av., Long Branch
Andrews, Thomas H., 363 Bath av., Long Branch
Baer, Irving, 65 Branch av., Red Bank
Baeseman, R. Winfield, 112 Main st., Allenhurst
Baker, Elsworth F., 58 Reckless pl., Red Bank
Banta, Edward E., 64 Peters pl., Red Bank
Bar, Samuel, Englishtown
Barnett, Lester A., 300 Deal Lake dr., Asbury Park
Binder, Joseph, 101 Third av., Long Branch
Blaisdell, C. Byron, 489 Broadway, Long Branch
Booth, Herbert W., 4th & Jersey avs., Spring Lake
Bornstein, Paul K., 601 Grand av., Asbury Park
Bossone, Joseph E., 362 Bath av., Long Branch
Boyd, John B., 31 Oakland st., Red Bank
Bregman, Milton, 81 Union av., Manasquan
Brindle, Harry R., 501 Grand av., Asbury Park
Brown, Edith L., 340 Garfield av., Avon
Brown, Kenneth G., 501 Grand av., Asbury Park
Bruzza, George, 415 Washington Blvd., Sea Girt
Burkhead, Howard C., 541 Broadway, Long Branch
Captanian, Aram A., 166 Main st., Matawan
Carter, Joseph F. S., 142 Atkins av., Asbury Park
Casagrande, Stephen R., 56 River rd., Rumson
Ciampa, Ralph P. E., 119 Morris av., Long Branch
Clark, John C., 501 Grand av., Asbury Park
Colby, Maxwell X., 133 Chelsea av., Long Branch
Collis, Abraham S., 156 Atlantic Av., Long Branch
Cooper, Jehu P., Box 74, Matawan
Costa, Philip L., 88 East Front st., Red Bank
Daversa, Benjamin, 209 Passaic av., Spring Lake
Dedick, Andrew P., Jr., 118 Branch av., Red Bank
Delcau, Jules, 56 W. Main st., Freehold
D'Elia, William J., 1100 Third av., Spring Lake
Demaree, Richard H., 310 Norwood av., W.L'gBr'nch
Dengrove, Edward, 314 Grassmere av., Interlaken
dePons, Sarah C., 501 Grand av., Asbury Park
DeSimone, Louis E., 1110 Grand av., Asbury Park
DeVita, Anthony J., Wilson av., Port Monmouth
Diamond, David I., Oceanport av., Oceanport
Dimitrow, Helen, 236 Broad st., Red Bank
Dorr, Henry B., 466 Broadway, Long Branch
Duvall, Albert I., N. J. State Hospital, Marlboro
Edelson, Samuel, 1611 Grand av., Asbury Park
Ellenson, Solomon S., 507 Fourth av., Asbury Park
Featherston, Daniel F., 601 Bangs av., Asbury Park
Feinberg, Harry D., 384 Second av., Long Branch
Feldman, Joel, 64 West Front st., Red Bank
Feman, J. George, 141 Main st., Keansburg
Fenton, Tennant E., 320 Ludlow av., Spring Lake
Ferguson, John, Monmouth Mem. Hosp., L. Branch

Fisher, James A., 501 Grand av., Asbury Park
Freedman, Harold H., 63 W. Main st., Freehold
George, Amerigo, 153 Third av., Long Branch
Gesswein, Carl A., 35 Church st., Matawan
Glazer, Edward, 84 Richmond pl., Deal
Goldstein, Benjamin, 320 Asbury av., Asbury Park
Gordon, J. Berkeley, N. J. State Hosp., Marlboro
Graber, Irving, 500 Tenth av., Belmar
Graham, Richard B., 720 Boston Blvd., Sea Girt
Haines, Emerson S., 614 Windermere av., Asbury P.
Halbstein, Bernard M., 138 Bath av., Long Branch
Hancock, Michael Q., Third av. & River rd., Belmar
Hardy, John W., 53 Main st., Farmingdale
Hausman, Samuel W., 50 W. Front st., Red Bank
Haut, Edward M., 21 Main st., Farmingdale
Heatley, William, 29 Drummond pl., Red Bank
Heisen, Aaron J., Imlaystown
Herrman, William G., 501 Grand av., Asbury Park
Heymann, Ernest F., 345 Broad st., Red Bank
Hindle, F. Lawton, 145 Maple av., Red Bank
Hodas, Sidney M., 268 Broad st., Red Bank
Holman, Francis W., 123 Broad st., Keyport
Holters, Otto R., 1002 Emory st., Asbury Park
Hummel, Frederick W., 606 F st., Belmar
Ingling, Harry W., 51 West Main st., Freehold
Isen, Paul J., 600 Third av., Bradley Beach
Jamison, William F., 501 Grand av., Asbury Park
Jarecki, Max M., 905 Bergh st., Asbury Park
Jones, Helen E., 601 Grand av., Asbury Park
Jordan, Joseph C., 238 E. Main st., Manasquan
Kahrs-Dreyfors, Madeline, N.J. State Hosp.,Marlb'ro
Kazmann, Harold A., 601 Grand av., Asbury Park
Koch, William, 601 Grand av., Asbury Park
Krohn, Marc, Campbell av., Belford
Lehmann, Otto, 138 Bath av., Long Branch
Leonard, Lothair L., 615 Asbury av., Asbury Park
Levin, Jack, 95 W. Main st., Freehold
Lewis, Jacob, 43 Court st., Freehold
Long, Elias E., 85 W. Front st., Red Bank
Lovett, Irving K., 110 E. Front st., Red Bank
Luca, Frank, 563 Westwood av., Long Branch
Luca, Mildred O., 563 Westwood av., Long Branch
MacKenzie, Robert A., 501 Grand av.. Asbury Park
Maher, John E., 90 Third av., Long Branch
Makin, John B., 501 Grand av., Asbury Park
Manahan, Daniel V., 55 East Front st., Red Bank
Martin, Leonard J., Box 431, Asbury Park
Matthews, William, 139 Broad st., Red Bank
Mazzei, Armando, 282 Liberty st., Long Branch
McCreight, David W., N. J. State Hosp., Marlboro
McCurdy, Robert G., 74 W. Highland av.,Atl.Highl'ds
McDonnell, George J., 80 W. Main st., Freehold
McGreevey, Harold, 314 Brighton av., Spring Lake
McKelvie, Julius C., 55 Rockwell av., Long Branch
McTague, Robert S., 37 E. Wash'gt'n av.,Atl.Highlds
Miele, Frank A., 314 Carr av., Keansburg
Mohair, John P., N. J. State Hosp., Marlboro
Movelle, John, 840 River rd., Fair Haven
Mulligan, Edward W., 81 Shrewsbury av., Red Bank
Nathanson, Norman, 489 Broadway, Long Branch
Neiderhoffer, Sydney L., 469 Broadway, L. Branch
Nichols, Stanley H., 517 Broadway, Long Branch
Niemtzow, Frank, 55 East Main st., Freehold
Opfermann, John L., 167 Bay av., Highlands
Osborn, A. Downey, 415 Fourth av., Belmar
Parker, James W., 175 Shrewsbury av., Red Bank
Parry, Oliver K., 601 Bangs av., Asbury Park
Payne, Douglas, 501 Grand av., Asbury Park
Perrine, Cornelius C., 668 River rd., Fair Haven
Perrotta, Anthony J., 42 Harding rd., Red Bank
Pieper, Howard C., 120 Main st., Keyport
Pietri, Raoul, 501 Grand av., Asbury Park
Pignataro, Frank P., 342 Broad st., Red Bank
Podell, A. Alfred, 51 E. Front st., Red Bank
Pons, Carlos A., 501 Grand av., Asbury Park
Pregnall, James P., 501 Grand av., Asbury Park
Quirk, Martin A., 69 W. Front st., Red Bank
Raffetto, Joseph F., 601 Bangs av., Asbury Park
Reynolds, Donald G., 64 W. Main st., Freehold
Rifici, Anthony L., 1010 Grand av., Asbury Park
Robinson, Ernest A., 149 Atkins av., Asbury Park
Robinson, William A., 62 Main av., Ocean Grove
Rocco, Leo C., 75 Maple av., Red Bank
Rosenthal, Abraham, 43 Third av., Atl. Highlands
Rubin, Adrian D., 401 First av., Asbury Park
Rubin, Harold, 601 Grand av., Asbury Park
Rubin, Jacob S., 505 Fourth av., Asbury Park
Rullman, Walter A., 58 W. Front st., Red Bank
Rush, Martin R., 326 Broad st., Red Bank
Schlossbach, Theodore, 94 S. Main st., Ocean Grove
Schmaier, Sica L., 607 Fifth av., Belmar
Schmidt, Albert F., 521 Crescent Parkway, Sea Girt
Schneider, Leonard, 618 Brinley av., Bradley Beach
Sewell, Stephen, 320 Passaic av., Spring Lake
Shanik, William, 601 Grand av., Asbury Park
Shapiro, Saul J., 50 E. Lincoln av., Atl. Highlands
Siegel, Victor, 43 E. Front st., Red Bank
Silverstein, Max, 605 First av., Asbury Park
Slocum, Harry B., 464 Church st., Long Branch
Steller, Frederick C., 220 St. Clair av., Spring Lake
Stevenson, George S., R. D. Box 556, Red Bank
Strahan, Frank G., 473 Broadway, Long Branch
Strauss, Arthur, 130 Pavilion av., Long Branch
Thetford, Norman D., 68 South st., Eatontown
Thompson, Victor, 80 W. Front st., Keyport
Tilley, John A., 165 Main st., Keyport
Toren, Julius A., R. D. 1, Box 95, Long Branch
Trippe, Morton F., 702 Asbury av., Asbury Park
Upham, Helen F., 305 Third av., Asbury Park
Verga, Armand, 20 Main st., Manasquan
Villapiano, Joseph G., 701 Sunset av., Asbury Park
Von Oehsen, William H., 623 4th av., Bradley Beach
Wainright, Melvin A. R., 286 Broad st., Red Bank
Weinstein, Alvin, 710 Mattison av., Asbury Park
Whelan, Vincent, 67 E. Front st., Red Bank
Wilbur, Franklin L., 515 Eighth av., Asbury Park
Wilkins, Stanley O., 47 E. Front st., Red Bank
Willey, Harry S., Jr., 112 Broad st., Red Bank
Wilson, Robert B., 48 Riverside av., Red Bank
Winder, Miles S., Jr., 601 Grand av., Asbury Park
Woodruff, Ralph G., Main st., Englishtown

ASSOCIATE MEMBERS

Barnett, Robert W., 601 Grand av., Asbury Park
Evans, H. Walter, Jr., Fitkin Mem. Hosp., Neptune
Fisher, James A., Jr., 601 Grand av., Asbury Park
Gilmour, Thomas J., Jr., 19 Maple av., Keansburg
Hutchinson, Harry F., 209 Passaic av., Spring Lake
Kelemen, Edward, 875 Broadway, Long Branch
Korbonits, Charles W., 1117 Sunset av., Asbury Park
McGrath, John F., Jr., N. J. State Hosp., Marlboro
Parker, James W., Jr., 179 Shrewsb'y av., Red Bank
Rubin, Samuel, 401 First av., Asbury Park
Shields, Henry A., 52 Novesink av., Highlands
Sinnott, John, Jr., Rumson rd., Rumson
Tobin, Joseph M., N. J. State Hospital, Marlboro
Tyndall, Alice D., 127 Maple av., Red Bank
Wiley, Herman O., 326 Shrewsbury av., Red Bank

COURTESY MEMBER

Fazio, Vincent J., Red Bank

HONORARY MEMBERS

Barber, Robert F., Farmingdale
Donovan, William F., Brielle
Hill, John A., Allenhurst
Jones, Granville L., Williamsburg, Virginia
Ransohoff, Nicholas S., Long Branch
Stewart, Edwin F., Fair Haven
Thomas, Harry G., New York
Worthington, Joseph A., Bradley Beach

MORRIS COUNTY (14)

Society organized June 11, 1816. Meets on the third Thursday in October, December, March and June. Annual Meeting in June.

ACTIVE MEMBERS

Abraham, Albert, 15 Altamont ct., Morristown
Alcaro, Joseph A., 85 Summit av., Wharton
Atkinson, John M., 93 Greenwood av., Madison
Baker, Augustus L., 389 W. Blackwell st., Dover
Baker, Augustus L., Jr., 389 W. Blackwell st., Dover
Beard, James R., Jr., Taff dr., Millington
Beaver, Jennie D., 44 Elm st., Morristown
Benz, Francis J., 30 Lum av., Chatham
Bertha, Nicholas A., 83 S. Main st., Wharton
Bird, Frank L., Main st., Netcong
Blake, Dexter B., R. F. D. 1, Far Hills
Bobadilla, Juan E. B., 293 S. Main st., Wharton
Booth, William K., 304 William st., Boonton
Borkow, Philip, 45 E. Blackwell st., Dover
Bowers, F. Clyde, Mountain av., Mendham
Breuder, Andrew B., Whippany rd., Whippany
Byrne, J. Arthur, 16 Elm st., Morristown
Carleton, Charles K., 266 S. Main st., Wharton
Cohen, Oscar H., 115 Church st., Boonton
Collins, Laurence M., N.J. State Hosp.,Greyst'ne P'k
Comeau, George W., 415 Speedwell av.,Morris Plains
Cook, Dora G., 317 Cornelia st., Boonton
Costello, William F., 55 W. Blackwell st., Dover
Coultas, Aldo B., 1 Madison av., Madison
Crandell, C. Archie, N. J. State Hosp., Greystone Pk.
Cummins, Ella F., 39 Elm st., Morristown
Curry, Marcus A., N. J. State Hosp., Greystone Park
DeFelice, Mario T., 790 E. Clarke pl., Orange
Deichman, Charles H., 39 Elm st., Morristown
Dirdack, Morris, 12 James st., Morristown
Dochtermann, Warren P., R. D. 1, Stanhope
Donovan, Joseph, N. J. State Hosp., Greystone Park
Earp, Ruth, 15 Olcott av., Bernardsville
Eckhardt, Ralph A., 50 Green Village rd., Madison
Emory, George B., Jr., 1 Franklin pl., Morristown
Esposito, Amedeo C., N. J. State Hosp.,GreystonePk.
Evans, Edgar J., 25 Second av., Denville
Failmezger, Theodore R., 125 Green av., Madison
Faivello, Nicholas A., 21 Wetmore av., Morristown
Finby, Nathaniel, 46 Main st., Netcong
Foley, James G., Bernardsville
Forbes, John S., Jr., W. Craig st., Basking Ridge
Frost, Inglis F., 181 South st., Morristown
Gambill, Perry J., N. J. State Hosp., Greystone Park
Gantt, Margaret H., 43 Hillcrest rd., Madison
Geary, Daniel J., 5 Community pl., Morristown
Gianni, Angelo R., 37 Main st., Netcong
Gilbertson, Robert L., 26 Maple av., Morristown
Giordano, Salvatore, 13 DeHart st., Morristown
Glazebrook, Francis H., "HoneysuckleW'ds,"Rumson
Gordon, Charles D., Mt. Arlington
Graddick, Lester W., 22 Sussex av., Morristown
Graft, Richard S., 44 Green av., Madison
Grant, Raymond J., 117 S. Main st., Wharton
Gregory, Marie F., 50 Green Village rd., Madison
Griscom, I. Norwood, 204 Church st., Boonton
Hampton, George R., N.J. State Hosp.,GreystonePk.
Harrington, J. Henry, 40 E. Main st., Rockaway
Hatch, Harold S., Shonghum Mt. Sana., Morristown
Haut, Gail W., 32 General Wayne Village, Madison
Haven, Samuel C., 14 Elm st., Morristown
Hiler, Stuart A., 62 Rockaway av., Rockaway
Hogan, Marshall D., 311 W. Main st., Boonton
Hopper, John B., E. Main st., Mendham
Hopping, John S., River rd., Hanover
Hornick, Emil E., 6 Altamont ct., Morristown
Hubert, Antonio O., 131 E. Main st., Rockaway
Ivey, Evelyn P., 3 Community pl., Morristown
Kelly, J. Paul, 30 Ridgedale av., Morristown
Kent, Donald F., 396 Main st., Chatham
King, Alden P., 400 W. Blackwell st., Dover
Klein, Milton, 45 E. Blackwell st., Dover
Klein, Solomon, 11 High st., Morristown
Kossmann, Walter J., Long Valley
Krauss, Fletcher I., 407 Main st., Chatham
Kuite, George B., 435 Speedwell av., Morris Plains
Larson, Henry M., 35 Franklin st., Morristown
Lathrope, George H., 965 Broad st., Newark
Laudig, Guy H., 361 Speedwell av., Morris Plains
Levendusky, Daniel E., 20 W. Main st., Rockaway
Lewin, Leo, Howard Blvd., Mt. Arlington
Luddecke, Hugh F., 40 Franklin st., Morristown
Luippold, Eugene J., Jr., 130 Fairview av., Boonton
MacGregor, Mary E. C., 242 Fairmount av., Chatham
Mathews, Raymond H., 186 South st., Morristown
McMahon, Bernard C., 15 James st., Morristown
McMurtrie, William A., 20 Franklin st., Morristown
Melvin, Daniel G., N. J. State Hosp., Greystone Park
Menden, Julian, 45 E. Blackwell st., Dover
Mills, Clifford, 36 Maple av., Morristown
Mintz, Alvin R., 32 Maple av., Morristown
Musetto, Carmelo A., 135 Cornelia st., Boonton
Navazio, Attilio, 29 DeHart st., Morristown
Oestreicher, Harry, Picatinny Arsenal, Dover
Parry, Allen A., 54 Green av., Madison
Parry, Antoinette R., 54 Green av., Madison
Patton, Paul B., 3 Winding Way rd., Morris Plains
Pinckney, Frank H., 186 South st., Morristown
Plume, Clarence A., Main st., Succasunna
Pottinger, William E., 6 Altamont court, Morristown
Prager, Bert A., 511 Main st., Chatham
Reilly, John T., 18 DeHart st., Morristown
Renna, Francis, 20 Morris av., Morristown
Riley, Philetus H., 181 South st., Morristown
Rosen, Herbert J., 42 Hudson st., Dover
Rosenberg, Alvin A., 22 High st., Morristown
Rubens, Otto, 153 E. Blackwell st., Dover
Ryman, Merlin T., 5 Dunbar st., Chatham
Sagert, Carl M., 18 Old Wood rd., Morris Plains
Schumacher, Evelyn L., 32 Maple av., Morristown
Seward, Frederic H., 40 Green Village rd., Madison
Shanik, Morton J., 55 W. Blackwell st., Dover

Spencer, Alvan, 395 W. Blackwell st., Dover
Stage, Earl DeW., 36 Maple av., Morristown
Steuart, David F. R., 9 Armstrong rd., Morristown
Talmage, William G., Main st., Succasunna
Teller, Daniel W., Jr., 28 DeHart st., Morristown
Terreri, D. Joseph, 30 High st., Morristown
Teskey, Stanley, 10 Anderson rd., Bernardsville
Thomas, Thomas S., Jr., 18 Elm st., Morristown
Thomson, Carroll S., Fair Oaks Sana., Summit
Truax, Alfred J., Chester
Van Wiemokly, Seymour S.,201 Speedw'l av.,Morrist'n
von Deilen, Henry O., 28 DeHart st., Morristown
Voorhies, Wm. S., Jr., N.J. State Hosp.,GreystonePk.
Voss, J. Landon, 212 South st., Morristown
Ward, Albert J., 39 Elm st., Morristown
Warne, Merna M., VA Hospital, Aspinwall, Pa.
Weiss, Herman, 300 Madison av., Madison
Wichman, Heins, 28 DeHart st., Morristown
Williams, David P., 116 Lake dr., Mountain Lakes
Williams, Louis E., 80 Green av., Madison
Woodman, Charles B., 212 South st., Morristown
Young, George J., 60 Maple av., Morristown
Zimmerman, Robert F., 28 Wash'gton av.,Morrist'n
Zuloff, D. Blair, 3 Community pl., Morristown

COURTESY MEMBERS

Joy, Homer T., Morristown
Morrison, John T., Mountain Lakes
Thorburn, Grant, Brookside

HONORARY MEMBERS

Baker, Augustus L., Dover
Beaver, Jennie D., Morristown
Costello, William F., Dover
Coultas, Aldo B., Madison
Curry, Marcus A., Greystone Park
Glazebrook, Francis H., Rumson
Gordon, Charles D., Mt. Arlington
Hampton, George R., Greystone Park
Haven, Samuel C., Morristown
Krauss, Fletcher I., Chatham
Lathrope, George H., Newark
Mills, Clifford, Morristown
Plume, Clarence A., Succasunna
Prager, Bert A., Chatham
Seward, Frederick H., Madison

OCEAN COUNTY (15)

Society organized October 28, 1903. Meets on second Wednesday of each month except July and August. Annual Meeting in May.

ACTIVE MEMBERS

Alpert, Sidney, 235 Fourth st., Lakewood
Appleton, Ralph, Lincoln av., Point Pleasant
Blumberg, A. William, New Egypt
Brown, Francis J., 326 Richmond av., Pt. Pleasant
Buermann, Robert, 206 Madison av., Lakewood
Bunnell, Frederick N., 22 S. Main st., Barnegat
Camarda, Joseph, P. O. Box 215, Lakehurst
Carmona, L. Roberto, 141 Wood st., Tuckerton
Dodd, William E., Ocean st. & Bay av., Beach Haven
Gartlan, Bernard W., Main st., Toms River
Gebele, William X., Jr., 310 Main st., Lakewood
Goldstein, Abraham, 404 Madison av., Lakewood
Gove, Richard R., Jr., 46th & Blvd., Brant Beach
Green, Thomas J., New Egypt
Hayden, Walter G., 504 Main st., Toms River
Henriksen, J. Bruce, 422 River av., Point Pleasant
Herbener, Eugene G., 423 Third st., Lakewood
Ivory, Harry S., Richmond av., Point Pleasant
Jaffe, Gorman, 626 Sixth st., Lakewood
Lehmacher, Frank, 16 Central av., Lakewood
Menge, Carl H., 236 Washington st., Toms River
Mitchell, Willis B., W. Washington st., Toms River
Nyvall, Pierre J., Barnegat
Obert, J. Edwin, Main st., New Egypt
Pecora, Carmine L., 212 Washington st., Toms River
Rinzler, Harvey, 614 Main st., Toms River
Sawyer, Blackwell, 109 Washington st., Toms River
Schneider, Clinton R., 125 N. Green st., Tuckerton
Serhus, Laurence N., 402 Main st., Toms River
Sickel, Emanuel M., 318 Forest av., Lakewood
Szold, Norman F., 701 Princeton av., Lakewood
Taylor, Raymond A., 58 Madison av., Lakewood
Towbin, Adolph, 326 Third st., Lakewood
Wentz, Irl Z., 224 Webster av., Seaside Heights
Witte, C. Norman, 422 River av., Point Pleasant
Yurevich, Antony, State Hosp., Las Vegas, N.Mexico
Zinkin, Solomon B., 328 Second st., Lakewood

PASSAIC COUNTY (16)

Society organized January 14, 1844; Society chartered November 14, 1843. Meets on third Tuesday of each month except June, July and August. Annual Meeting in May.

ACTIVE MEMBERS

Abramo, Anthony E., 141 Glen av., Midland Park
Achtentuch, Herman, 113 Sherman st., Passaic
Ackerhalt, Martin J., 408 Clifton av., Clifton
Adler, Fritz F., 777 Market st., Paterson
Allen, Arthur A., 365 Park av., Paterson
Allen, Edwin J., 269 Carroll st., Paterson
Allen, James M., 585 Main st., Passaic
Alpren, Bernard F., 17 Church st., Paterson
Ambrose, Francis, 445 - 15th av., Paterson
Andrews, Albert G. K., P. O. Box 743, Passaic
Apter, Abraham H., 45 Church st., Paterson
Aronsohn, Charles M., 459 Park av., Paterson

Ash, Frank W., 180 Carroll st., Paterson
Atwood, Edward A., 360 Park av., Paterson
Averbach, Jacob, 435 Clifton av., Clifton
Balles, Edward S., 392 Park av., Paterson
Barlow, Frank A., 205 Dartm'th st.,N.,St.Petersb'g.F.
Barolsky, Benjamin, 452 15th av., Paterson
Barone, Leo J., 392 Van Houten st., Paterson
Barr, Joseph, 975 Madison av., Paterson
Baxt, Sidney J., 544 21st av., Paterson
Becker, Frank F., 337 E. Ridgewood av., Ridgewood
Becker, George L., 646 E. 28th st., Paterson
Becker, Leo V., 69 Ward st., Paterson
Beim, Norbert, 660 Broadway, Paterson
Bender, Theodore, 666 Broadway, Paterson
Benjamin, Joseph F., 203 Godwin av., Ridgewood
Berk, M. David, 505 Wanaque av., Pompton Lakes
Berkhout, Peter G., 106 Haledon av., Prospect Park
Berner, Benjamin, 465 Park av., Paterson
Bernson, Samuel T., 33 Bartholf av., Pompton Lakes
Beshlian, Hagop K., 7 Lee pl., Paterson
Biczak, Arkad K., 311 Lexington av., Clifton
Blake, Albert J., 640 Broadway, Paterson
Bohl, Louis J., 320 Broadway, Paterson
Bongiorno, Henry D., 516 River st., Paterson
Bornstein, David, 566 Broadway, Paterson
Botbyl, Burt W., 927 Madison av., Paterson
Brancone, Alphonse M., 417 21st av., Paterson
Brawer, Jerome, 425 Park av., Paterson
Brogan, Francis B., 600 Broadway, Paterson
Bromberg, Charles B., 107 Lexington av., Passaic
Bronner, Alfred, 47 Burgess pl., Passaic
Brooks, Sidney S., 380 12th av., Paterson
Budd, J. Reuben, 230 Lexington av., Passaic
Bullen, Victor E., 148 Hamilton av., Paterson
Butterfield, Arey A., 655 Main av., Passaic
Calligaro, Egildo A., 288 Parker av., Clifton
Capell, Harry H., 302 Broadway, Paterson
Capio, Mario D., 293 Broadway, Paterson
Carlisle, John H., 129 Prospect st., Passaic
Carlough, David J., 426 Ellison st., Paterson
Carusi, Leonardo G., 337 Park av., Paterson
Catanzaro, Francesco, 151 Jefferson st., Passaic
Chapnick, Maurice M., 715 Broadway, Paterson
Charney, William, 546 Broadway, Paterson
Cherry, Homer H., Valley View Sana., Paterson
Chester, Saul W., 634 Broadway, Paterson
Chilton, Forrest S., Pompton Tpk., Pompton Plains
Chrisman, Irving, 423 Broadway, Paterson
Chudzik, Edward W., 269 Outwater lane, Garfield
Churg, Jacob, Barnert Memorial Hosp., Paterson
Ciccone, Roy, 57 Passaic av., Passaic
Cichon, Elmer J., 679 Van Houten av., Clifton
Clark, Orlo H., 149 Prospect st., Passaic
Close, Byron H., Hamburg Turnpike, Bloomingdale
Cogan, Henry, 117 Beverly ct., Daytona Beach, Fla.
Cohen, Julian, 592 E. 29th st., Paterson
Cohen, Louis, 257 Paulison av., Passaic
Cohen, M. Marvin, 582 E. 25th st., Paterson
Cole, L. Frank, 388 Terhune av., Passaic
Conserva, Peter V., 196 Randolph av., Clifton
Cortese, Alvin E., 26 Ward st., Paterson
Cremens, John F., 144 Carroll st., Paterson
Crescente, Fred J., 836 Madison av., Paterson
Crounse, David R., 84 Broadway, Passaic
Curtis, A. Maurice, 445 Van Houten st., Paterson
Davis, A. Hobson, Paterson General Hosp., Paterson
Dawson, Harry, 618 E. 24th st., Paterson
DeBell, Peter J., 65 Summer st., Passaic
DeDominicis, Frank A., 811 East 22nd st., Paterson
DeGrace, Francis H., 311 Paulison av., Passaic
Deich, Samuel R., 170 Passaic av., Passaic
Delario, Anthony J., 316 Broadway, Paterson
Della Penna, Samuel J., 320 Ramapo av., Pompton L.
Del Mauro, Alphonse, 460 Park av., Paterson
DeMattia, Michael, 71 Ward st., Paterson
Denison, Ward C., 316 Broadway, Paterson
DeRosa, Armand, 262 Totowa rd., Totowa
Desmet, Victor F., 324 Broadway, Paterson
De Yoe, Leon E., 602 Broadway Paterson
Dingman, Norman M., 330 Broadway, Paterson
Dirr, John P., 785 Main av., Clifton
Doktor, David, 648 14th av., Paterson
Donnelly, Joseph E., 445 Market st., Paterson
Drake, Daniel E., Union Valley rd., Newfoundland
Duncan, Owsley B., 414 Ellison st., Paterson
Dwyer, William A., 99 Park av., Paterson
Edlkraut, Edward C., 320 Lexington av., Clifton
Edson, James, 336 Belmont av., Haledon
Ehrenfeld, Irving, 185 Lexington av., Passaic
Ehrlich-Morrow, Laura E., 585 Main av., Passaic
Eisemann, Jerome S., 38 Main st., Butler
Esposito, Anthony L., 246 Lexington av., Passaic
Farkas, Gustav, 255 Harrison st., Passaic
Feliciano, Vincent, 286 Lafayette av., Hawthorne
Fenster, Morton N., 202 Lexington av., Passaic
Fenwick, John R., 196 Lakeview av., Clifton
Ferrari, Salvatore, 372 21st av., Paterson
Ferrary, Paul B., 232 Totowa rd., Totowa
Ficker, Robert F., Ogdensburg
Fielding, William M., 15 Waldwick av., Waldwick
Fiering, Abraham M., Pompt'n Tnpk., Mount'n View
Fisher, Samuel, 808 Madison av., Paterson
Foote, Sherman K., Clinton av., Wyckoff
Fortay, Steven O., 474 Park av., Paterson
Fortuin, Floyd, 434 Park av., Paterson
Fraulo, Louis, 241 Crooks av., Clifton
Friedman, Edna C., 584 Broadway, Paterson
Friedmann, Gustav, 425 Park av., Paterson
Gallardo, Agustin, 61 Lakeside av., Pompton Lakes
Gallo, James S., 660 Broadway, Paterson
Gannon, John R., Passaic General Hospital, Passaic
Garnett, Robert, 204 Madison st., Passaic
Ged, Archie K., 1133 Main st., Paterson
Geiger, Harold C., Main st., West Milford
Geller, Joseph J., 137 Ellison st., Paterson
Gellman, William B., 163 Valley Blvd., Wood-Ridge
Gelman, Sidney, 600 E. 27th st., Paterson
Gerson, Stanley, 480 Park av., Paterson
Giambra, Sante M., 400 Park av., Paterson
Ginsburg, Samuel, 227 Paulison av., Passaic
Gochman, Harry M., 166 Hamilton av., Paterson
Goldenberg, Raphael R., 588 E. 27th st., Paterson
Golding, Harry N., 180 Carroll st., Paterson
Golish, Harry L., 425 15th av., Paterson
Gordon, Abel, 616 Main av., Passaic
Gordon, Samuel, 540 Park av., Paterson
Gordon, William, 648 Ringwood av., Wanaque
Gormley, Cyrus M., 320 Broadway, Paterson
Gould, John H., 92 Monte Vista av., Ridgewood
Graeter, F. Albert, 43 Barry pl., Passaic
Graham, Archibald F., 42 Park av., Paterson
Graham, Theodore K., 279 Park av., Paterson
Greengrass, Jacob J., 146 Broadway, Paterson
Greenwell, Albert W., 6 S. Brookwood dr., Montclair
Grossbard, Paul, 211 Lexington av., Passaic
Guarraia, Joseph, 285 Van Winkle av., Hawthorne
Gurnee, Quinby D., 168 Diamond Br. av., Hawthorne
Halnan, John J., Jr., 631 Madison av., Paterson
Harreys, Charles W., 153 Prospect st., Ridgewood
Hatem, Elias J., 1046 Main st., Paterson
Hathaway, George, Jr., 149 Prospect st., Passaic
Hayman, Irving R., 681 Broadway, Paterson
Herman, Isadore, 119 Quincy st., Passaic
Hillmann, Frederick C., 64 Hamilton st., Paterson
Hochman, Alex, 260 Hamilton av., Paterson
Hollingsworth, H. Hale, 86 First st., Clifton
Holmes, Thomas J. E., 151 Fair st., Paterson
Holster, Stephen G., 951 Madison av., Paterson
Holt, Herman H., 576 Broadway, Paterson
Hughes, J. Vernon, P. O. Box 454, Passaic

Ianacone, John A., 310 Fifth av., Paterson
Iraggi, James V., 53 Passaic av., Passaic
Izenberg, David, 555 E. 29th st., Paterson
Jaffe, Hyman, 149 Broadway, Passaic
Jahn, Albert G., 657 Main av., Passaic
Jani, Frank F., 297 Lexington av., Passaic
Joelson, Dora, 485 Park av., Paterson
Joelson, Morris S., 577 Broadway, Paterson
Joffe, Philip M., 556 E. 28th st., Paterson
Joffe, Sidney H., 556 E. 28th st., Paterson
Johnsen, Sigurd W., 149 Prospect st., Passaic
Joseph, Morris, 271 Lexington av., Passaic
Jurewicz, Stanley T., 290 - 17th av., Paterson
Kaletkowski, Marion F., 4 Englewood rd., Clifton
Kassel, Mortimer H., 34 Elmwood ct., East Paterson
Katz, Harry, 494 Park av., Paterson
Keating, Charles A., 177 Ellison st., Paterson
Keating, Joseph M., 657 Main av., Passaic
Keller, Michael L., 673 E. 27th st., Paterson
Kelley, Ray H., 72 Wyckoff av., Midland Park
Kennedy, A. Andrew, 121 Hadley av., Clifton
Kennedy, Eugene T., 413 Wanaque av.,PomptonLks.
Kim, Gay B., 703 Main st., Paterson
Kinney, Burton O., 41 Lincoln av., Little Falls
Kleiner, Samuel, 162 Hamilton av., Paterson
Kleinmann, Eberhart H., 560 Broadway, Paterson
Klughaupt, Dorothy K., 257 Boulevard, Passaic
Koenig, Bertram, 282 Broadway, Paterson
Koerber, George, 136 Prospect st., Passaic
Kovaleski, Walter A., 77 Market st., Passaic
Kovin, Abraham, 123 Lexington av., Passaic
Krakower, Alvin H., 528 E. 29th st., Paterson
Kremer, Leonard, 707 Broadway, Paterson
Krugman, Benjamin M., 438 Park av., Paterson
Laauwe, Harold W., 360 Park av., Paterson
Landaw, Louis, 631 E. 26th st., Paterson
Lang, Richard E., 463 Passaic av., Passaic
Lawless, Edward T., 47 Hawthorne av., Bloomfield
Lawrence, Elias D., 499 Park av., Paterson
Leach, John E., 274 Carroll st., Paterson
Legg, George E., 666 Broadway, Paterson
Lemay, Albert T., 532 14th av., Paterson
Levine, David B., 647 Broadway, Paterson
Levine, Sidney C., 459 Park av., Paterson
Levinsohn, Sandor A., 656 East 29th st., Paterson
Levy, David, 268 Park av., Paterson
Levy, Herman, 158 Lexington av., Passaic
Lima, John G., 292 Broadway, Paterson
Linares, A. Carfi, 208 Market st., Paterson
Lipton, Louis, 67 Passaic av., Passaic
Lobsenz, Nathan P., 294 Broadway, Paterson
Lomauro, James R., 184 Lexington av., Passaic
London, Jules R., 340 Paulison av., Passaic
London, Leslie, 120 Lexington av., Passaic
Low, Donald B., 529 Broadway, Paterson
Lucent, S. Bell, 2 First av., Little Falls
Luksteid, Casimir J., 326 Park av., Paterson
Mabee, John R., 24 Center av., Little Falls
MacGregor, Allan W., 379 Ellison st., Paterson
Mackler, Meyer E., 627 E. 24th st., Paterson
Maclay, Joseph A., 239 Broadway, Paterson
Maffongelli, Joseph A., 494 River st., Paterson
Magnes, Max, 555 15th av., Paterson
Manrodt, Kurt, Jr., Pompton Plains
Marini, Dominick, 40 Henry st., Passaic
Markowitz, Louis, 380 Park av., Paterson
Marrocco, William A., 445 Park av., Paterson
Martin, Theodore, 577 Lincoln av., Glen Rock
Masucci, Alberico, 128 Carroll st., Paterson
Matthews, Leonard M., 655 Main av., Passaic
McBride, Andrew F., Jr., 655 Broadway, Paterson
McCarthy, George L., 506 Union av., Paterson
McCue, John B., 118 Lenox av., Pompton Lakes
McDonald, Richard J., 80 Park av., Paterson
McPherson, Malcolm E., 141Dlam'd Br.av.,H'wth'rne
Meer, Nadhim E., 338 Park av., Paterson
Meier, William U., 1062 Ringwood av., Haskell
Meloney, Lester F., 156 Second st., Clifton
Meneve, Alfred D., 320 Broadway, Paterson
Michelson, Henry, 675 E. 24th st., Paterson
Missonellie, William, 404 Lafayette av., Hawthorne
Mitchell, Charles R., 311 Broadway, Paterson
Monaloy, Morris A., 414 Passaic av., Passaic
Morici, Theodore, 80 Howe av., Passaic
Morrill, James P., Jr., 310 Broadway, Paterson
Morrow, J. Lloyd, 585 Main av., Passaic
Moscoe, Harry A., 542 Broadway, Paterson
Mott, Joseph E., 426 Park av., Paterson
Murn, Charles J., 48 Smith st., Paterson
Nemirow, Martin, 234 Lexington av., Passaic
Nesbitt, Elizabeth, N. Jersey Tr'n'g Sch'l,LittleFalls
Nimaroff, Harold, 152 Market st., Passaic
Notkin, Meyer, 559 Broadway, Paterson
Noto, Philip, 158 Washington pl., Passaic
Nussbaum, Nathan, 237 Lakeview av., Clifton
Nuzzolo, Charles A., 400 Park av., Paterson
O'Brian, Dennis M., 154 Lexington av., Passaic
O'Brian, Jeremiah H., 661 Main av., Passaic
Offenkrantz, Freder'k M., St. Joseph's Hosp., Pat's'n
Ogden, Michael A., 20 Grove st., Passaic
Okin, Irving, 165 Passaic av., Passaic
Opper, Philip, 606 E. 26th st., Paterson
Oram, Joseph H., 495 Broadway, Paterson
Ozier, Charles W., 223 Autumn st., Passaic
Palma, Nicholas, 116 17th av., Paterson
Palmer, Francis R., 220 Lexington av., Passaic
Palmeri, Anthony, 111 Chelsea rd., Clifton
Paris, Willlam, 518 E. 25th st., Paterson
Pasternack, Elroy, 71 Lexington av., Passaic
Patella, Fulvio, 324 Broadway, Paterson
Pernetti, Anthony M., 400 Park av., Paterson
Pfeffer, Burton B., Veterans Administration, Lyons
Phelps, James E., 203 Park av., Paterson
Piasecki, Chester A., 585 E. 29th st., Paterson
Pinck, Bernard, 161 Lexington av., Passaic
Pink, Solomon H., 21 High st., Butler
Plinke, Fritz W., 663 Main av., Passaic
Polizzotti, Joseph L., 193 Park av., Paterson
Pollock, Theodore, 64 Grove st., Passaic
Polowe, David, 555 E. 27th st., Paterson
Prince, Robert A., 567 Broadway, Paterson
Provisor, Benjamin, 271 Lexington av., Passaic
Raab, Michael, 250 Lexington av., Passaic
Radest, Louis J., 347 Broadway, Paterson
Randazzo, Anton P., 82 Prospect st., Passaic
Rasin, Carl, 158 Lexington av., Passaic
Rauschenbach, Paul E., Jr., 612 E. 29th st., Paterson
Reading, H. Eugene, 535 E. 29th st., Paterson
Reeves, Ernest, 195 Lexington av., Passaic
Reilly, Thomas F., 127 Union av., Clifton
Reinhorn, Abraham J., 597 E. 27th st., Paterson
Reinkraut, Arthur D., 175 Broadway, Passaic
Ressetar, Michael, 455 Lexington av., Clifton
Riccobono, Cosmo S., 334 Park av., Paterson
Rinzler, Harry G., 127 Van Houten av., Passaic
Ritter, John J., Box 86, Plainfield, Mass.
Rizzo, Ettore G., 352 Van Houten st., Paterson
Robertson, Eugene V., 17 Arlington av., Hawthorne
Roemer, Jacob, 591 E. 27th st., Paterson
Romano, Michael J., 2 Arlington pl., Radburn
Ross, Peter W., 655 Main av., Passaic
Rothenberg, Friedrich, 395 Ellison st., Paterson
Roy, Joseph N., 95 17th av., Paterson
RuBacky, Joseph F. A., 61 Passaic av., Passaic
Ruocco, William B., 416 River st., Paterson
Sabarese, Theodore C., 122 Marsellus pl., Garfield
Saco, Louis S., 922 Main st., Paterson
Saffron, Morris H., 292 Paulison av., Passaic
Sala, Aldo W., 172 Randolph av., Clifton
Salerno, Louis, 973 Van Houten av., Clifton

Salter, Kent, Valley View Sana., Paterson
Salzman, Nathan, 714 Broadway, Paterson
Sanfacon, Thomas A., 340 Park av., Paterson
Santangelo, Emil L., 313 18th av., Paterson
Santoro, Anthony, 45 Ward st., Paterson
Sarokhan, Joseph, 771 Madison av., Paterson
Schafer, Marguerite A., 298 D'mondBr.av.,H'wth'rne
Scheip, James R., II., 343 S. Pleasant av., Ridgew'd
Schleifer, Arnold, 10-04 River rd., Fair Lawn
Schlossberg, Ezra, 156 Amsterdam av., Passaic
Schnee, Isadore M., 586 E. 25th st., Paterson
Schubert, Roy R., 466 Park av., Paterson
Schultz, Irving A., 31-11 Broadway, Warren Point
Schwartz, Jacob R., P. O. Box 305, Fair Lawn
Schwartz, Leo, 301 Harrison st., Passaic
Schwartz. William, 224 Lexington av., Passaic
Schwartzberg, Frederick I., 522 Broadway, Paterson
Schwarz, Julianna L., 115 Prospect st., Passaic
Scielzo, Nicholas F., 369 Park av., Paterson
Scillieri, John, 660 Broadway, Paterson
Scovern, Louis, 112 Westervelt pl., Passaic
Scribner, Chas. H., R.F.D.1, Hamb'g Tnpk.,Pat'ers'n
Selikoff, Irving, 707 Broadway, Paterson
Shapiro, David, 542 Broadway, Paterson
Shapiro, Joseph S., 314 Fair st., Paterson
Shapiro, Louis G., 375 Broadway, Paterson
Shechtman, Abraham, 37 Grove st., Passaic
Shefi, Matthew J., 112 Lexington av., Passaic
Shinefeld, Maurice A., 675 Broadway, Paterson
Shipman, Meyer P., 575 Broadway, Paterson
Shulman, Abraham, 528 E. 29th st., Paterson
Siciliano, Thomas, 6 Clinton av., Clifton
Silver, Michael W., 718 E. 25th st., Paterson
Silverman, Irving A., 164 Randolph av., Clifton
Simon, Philip H., 174 Columbia av., Passaic
Siss, Alfred A., 198 Haledon av., Prospect Park
Sloan, Samuel L., 182 Belmont av., Paterson
Small, Louis, 101 Prospect st., Passaic
Smith, Elroy W., 309 E. DeLido dr., Miami B'ch,Fla.
Smith, Leon A., 655 Main av., Passaic
Smolev, Joseph M., 585 Main av., Passaic
Snell, Philip, 217 Paulison av., Passaic
Sobel, I. Jerome, 136 Broadway, Passaic
Spinnler, Henry R., 242 Haledon av., Prospect Park
Sporer, Andrew, 707 Broadway, Paterson
Stark, Jacob, 645 Broadway, Paterson
Stein, Harold M., 227 W. Broadway, Paterson
Stein, Harriet N., 620 Ridge rd., Lyndhurst
Stier, Howard W., 657 Main av., Passaic
Stokes, James S., 32 Main st., Little Falls
Stoltz, Raymond R., 23 Passaic av., Passaic
Stouter, Francis L., 661 E. 18th st., Paterson
Strully, Leonard V., 660 Broadway, Paterson
Sucoff, Moses C., 158 Hamilton av., Passaic
Sullivan, William M., Jr., 43 Passaic av., Passaic
Surgent, George W., 1074 Van Houten av., Clifton
Szymanski, John J., 616 Main av., Passaic
Taber, Leslie R., 292 Broadway, Paterson
Tarta, Ciro S., 654 E. 18th st., Paterson
Teichholz, Max H., 19 Meade av., Passaic
Tell, M. Edward, 249 Lexington av., Passaic
Thomas, Irene O., 350 Lafayette av., Hawthorne
Thomas, Leon H. S., 631 E. 22nd st., Paterson
Thompson, Edward C., 373 Park av., Paterson
Thompson, Walter A., 714 Ackerman av., Glen Rock
Thron, Leopold E., 586 E. 29th st., Paterson
Todd, Francis H., 83 Auburn st., Paterson
Tomkins, William, 105 Fairmount rd., Ridgewood
Tweddel, George K., 239 Broadway, Paterson
Udinsky, Hyman J., 57 Passaic av., Passaic
Vanderbeck, James J., 123 Prospect st., Ridgewood
Vanderbeek, Andrew B., 174 Broadway, Paterson
Vanderbeek, Frank B., 683 E. 27th st., Paterson
Vander Clock, Cornelius, 178 Gregory av., Passaic
Van Eerde, Albert, 339 Lafayette av., Hawthorne
Van Schott, Gerard J., Jr., 245 Lex'gton av., Passaic
Van Winkle, John S., 297 Broadway, Paterson
Varhol, Joseph G., 436 Clifton av., Clifton
Vermeulen, Abram, 344 Haledon av., Prospect Park
Vernaglia, Anthony P., 418 Lincoln av., Hawthorne
Vosburgh, Fred, 663 Main av., Passaic
Vreeland, Ralph J., 278 McKinley pl., Ridgewood
Walker, Harold G., 252 Everett av., Wyckoff
Wallace, Marc J., 165 Lakeview av., Clifton
Walton, Gordon G., 575 E. 28th st., Paterson
Warburton, Jack C., 333 Park av., Paterson
Warren, David E., 48 Rutgers pl., Passaic
Warren, Earl L., Box 1738, Paterson
Warren, Jacob, 308 18th av., Paterson
Wassing, Hans, 695 Broadway, Paterson
Weiner, Aaron, 660 Broadway, Paterson
Weinert, Henry V., 128 Market st., Passaic
Weintraub, William L., 400 Broadway, Paterson
Weisman, Stephen L., 526 Broadway, Paterson
Westerhoff, Peter D., 51 Highland av., Midland Park
Williams, Hiram, P. O. Box 266, Montclair
Winters, Walter M., 288 Broadway, Paterson
Wolf, Erich, 43 Grove st., Passaic
Wolf, Israel J., 231 East 31st st., Paterson
Wolfson, Harry, 356 Park av., Paterson
Wry, Dean A., 234 Dayton av., Clifton
Yachnin, Samuel C., 127 Prospect st., Passaic
Yager, J. Allen, 420 Broadway, Paterson
Yates, John S., 414 Ellison st., Paterson
Yeaw, Ralph C., 310 Broadway, Paterson
Yorke, Benjamin, 908 Main st., Paterson
Zalewski. Irene J., 181 Paulison av., Passaic
Zeiner, Eugene J., 517 Broadway, Paterson
Zick, Clara U., 60 Highland rd., Glen Rock
Zigarelli, Joseph F., 275 E. 18th st., Paterson
Zuckerman, David E., 568 Broadway, Paterson
Zuckerman, Louis, 568 Broadway, Paterson

ASSOCIATE MEMBERS

Betlejeski, Z. John, 93 Howe av., Passaic
Born, Joseph, 457 E. 28th st., Paterson
Buckner, Louise P., 93 Howe av., Passaic
Burchell, Frank H., 108 Preakness av., Paterson
Canaan, Robert, 12-18 River rd., Fair Lawn
Colfax, Richard S., 33 Bartolf av., Pompton Lakes
DeLuccia, Ralph L., 428 Park av., Paterson
Farber, Herbert R., 675 Broadway, Paterson
Feld, Leo, 155 Lexington av., Passaic
Hurewitz, Benjamin, 0-95 Midland av., Fair Lawn
Insolera, John A., 388 Park av., Paterson
Kerr, Andrew D., Jr., 19 Lincoln av., Clifton
Kollsch, Paul deR., 39 Waldron av., Glen Rock
Kuhn, Richard E., 39 Fernwood Ct., Clifton
Kurtz, Gerald I., 306 Broadway, Paterson
Leone, Armando, 416 Park av., Paterson
Murphy, George E., 440 Marshall st., Paterson
Muster, William J., 525 E. Ridgewood av., Ridgew'd
Nowak, Emil, 738 Market st., Paterson
Pasquariello, Peter, 975 E. 25th st., Paterson
Rosenberg, Marvin, 174 Gregory av., Passaic
Sall, Jack, 665 Broadway, Paterson
Scillieri, Frank, 1072 Madison av., Paterson
Shershin, Peter, Chittenden rd., Clifton
Steller, Stanley, 597 E. 27th st., Paterson
Szafir, Paul, 250 Van Houten st., Paterson
Tarchiani, Lucius S., 472 River st., Paterson
Taylor, Halley B., Jr., 221 Hamilton av., Paterson
Tweddel, George K., Jr., 505 Park av., Paterson
Urie, Murray G., 394 E. 30th st., Paterson
Vander Bush, Edward F., 534 E. 29th st., Paterson
Young, William V., 263 Mt. Prospect av., Clifton

COURTESY MEMBERS

Goldfarb, Abraham, Rutherford
Larkey, Irving G., Newark
Lewin, Michael L., Paterson
Slaff, Florence, Passaic
Trilling, Leonard J., Paterson

EMERITUS MEMBERS

Becker, Leo V., Paterson
Bullen, Victor E., Paterson
Cogan, Henry, Daytona Beach, Florida
Crounse, David R., Passaic
Duncan, Owsley B., Paterson
Flitcroft, William, Waukesha, Wisc.
Golding, Harry N., Paterson
Maclay, Joseph A., Paterson
Mitchell, Charles R., Paterson
Ritter, John J., Plainfield, Mass.
Scribner, Charles H., Paterson
Todd, Francis H., Paterson
Vanderbeek, Andrew B., Paterson
Walton, Gordon G., Paterson
Yates, John S., Paterson

SALEM COUNTY (17)

Society organized May 4, 1880. Meets on the third Friday of each month, September to May, inclusive. Annual Meeting in April. Social Meeting in May.

ACTIVE MEMBERS

Bramble, Halsey S., Front & Chestnut sts., Elmer
Caggiano, John D., 140 W. Main st., Penns Grove
Chesler, Maurice, 124 W. Broadway, Salem
Cox, J. Robert, 37 W. Main st., Penns Grove
Davison, C. Spencer, 7 Chestnut st., Salem
Davison, Wilbur S., 13 N. Broadway, Pennsville
Dunn, John S., 75 Market st., Salem
Evans, Edgar E., 12 Ziegler Tract, Penns Grove
Fleming, Charles L., 42 W. Main st., Penns Grove
Gilpatrick, Charles E., 18 Spring st., Penns Grove
Green, David W., 69 Market st., Salem
Griffin, Joseph P., 79 Third st., Carneys Point
Hansen, Kurt M., 31 East av., Woodstown
Hilliard, William T., 105 Market st., Salem
Hummel, Lee C., 109 W. Broadway, Salem
Jonas, August, 328 E. Broadway, Salem
Lipkin, Isadore, 157 W. Main st., Penns Grove
Mackes, Claude B., 48 N. Main st., Woodstown
Madara, John S., 31 Market st., Salem
Mason, Alvin S., 26 Olive st., Salem
Miller, William H., 7 Dickinson st., Woodstown
Neander, David G., 57 Chestnut st., Salem
Perry, Frank L., 39 East av., Woodstown
Quigley, Joseph A., 8 Ziegler Tract, Penns Grove
Silverman, R. Louis, 21 W. Main st., Penns Grove
Suter, Harry F., 49 W. Main st., Penns Grove
Thomas, Claude W., 28 East av., Woodstown
Wetherhold, John M., 20 Ziegler Tract, Penns Grove
Wolfe, Humphrey D., 23 Spring st., Penns Grove
Zappala, John, 47 W. Main st., Penns Grove

SOMERSET COUNTY (18)

Society organized May 21, 1816. Meets on second Thursday evening of each month except July, August and September Annual Meeting in June. Dinner Meeting in October.

ACTIVE MEMBERS

Abramson, Harry, 14 W. Young st., Somerville
Allegrante, Anthony J., Washington Val.rd., Martinsv'e
Ambrose, Frederick H., 304 E. High st., Bd. Brook
Ambrose, Robert R., 304 E. High st., Bound Brook
Barbour, George E., 118 W. High st., Somerville
Blecher, Irving E., Veterans Administration, Lyons
Borow, Benjamin, 507 Church st., Bound Brook
Borow, Henry, 507 Church st., Bound Brook
Borow, Louis S., 507 Church st., Bound Brook
Borow, Maurice, 524 Church st., Bound Brook
Brittain, Elmore G., 15 W. Bridge st., Bound Brook
Case, Clarence E., Jr., 15 W. Bridge st., Somerville
Chase, Anthony V., 220 S. Main st., Manville
Cook, Caroline S., 27 E. Cliff st., Somerville
Cook, Homer E., 27 E. Cliff st., Somerville
Craig, Henry A., 315 William st., Somerville
Day, Hayward F., 92 Duer st., North Plainfield
Douglass, William C., 15 Olcott av., Bernardsville
Dresel, Irmgard, Mine Brook rd., Far Hills
Edelberg, Sidney S., 403 E. High st., Bound Brook
Ely, Lancelot, 128 W. High st., Somerville
Falcone, Nicholas A., 68 Watchung av., N. Plainfield
Field, Frank L., Far Hills
Flint, Edgar T., 44 E. Somerset st., Raritan
Fritts, Lewis C., 118 West End av., Somerville
Galgoczy, Julius, 16 E. Camplain rd., Manville
Gentile, Ernest R., 125 Hamilton st., Bound Brook
Gerwanter, Aaron P., Somerset Co. Hosp., Somerv'le
Glass, George A., 282 E. Main st., Somerville
Greenberg, George A., 195 W. High st., Somerville
Hartmann, Edmund M., 1414 Chetwynd av., Plainfield
Hegeman, Runkle F., 161 W. High st., Somerville
Hird, Emerson F., 118 E. Maple av., Bound Brook
Hochhelmer, Arthur, 417 Somerset st., Bound Brook
Husted, Samuel H., Main rd., Neshanic
Hyer, Godfrey S., 199 W. High st., Somerville
Jones, William F., 15 N. Bridge st., Somerville
Kay, Clarence R., Main st., Peapack
Klompus, Irving, 301 E. High st., Bound Brook
Liddell, Raymond N., 45 Grant av., Somerville

Marcus, Bernard, 6 S. Clark av., Somerville
McKinley, C. Scott, Bakelite Corp., Bound Brook
Mintz, Julius, Sycamore av., North Plainfield
Misko, Albert, 117 Westervelt av., N. Plainfield
Pauly, Arthur N., 297 W. Summit st., Somerville
Pauncz, Arpad, Veterans Administration, Lyons
Pitman, Mason W. H., 17 Ross st., Somerville
Pogoloff, Samuel H., 68 N. First av., Manville
Reale, Nicholas P., Brooks blvd., Manville
Renner, Clara C., Blawenburg
Rossi, Bartolomeo, 31 W. Main st., Bound Brook
Rossi, Gene, 148 W. Franklin st., Bound Brook
Russo, Dominic T., 51 E. Somerset st., Raritan
Sanford, Marcus E., 27 Ross st., Somerville
Sargent, Eva R., 121 Myrtle av., North Plainfield
Spaido, John L., 32 Grove st., Somerville
Stolow, Alan A. J., 219 W. Summit st., Somerville
Tolomeo, Martin E., 5 E. High st., Bound Brook
Van Dyke, Laura V., 125 Hamilton st., Bound Brook
Van Horn, Abram L., 744 Broad st., Newark
Wallach, Bernard, 74 Watchung av., N. Plainfield
Weitz, Paul, Veterans Administration, Lyons
Wender, Harold, 103 Clinton st., So. Bound Brook
Wilson, Jon M., 125 Hamilton st., Bound Brook
Wolfsie, Jacob H., American Cyanamid Co., Linden
Young, James L., 68 Mountain av., Somerville

SUSSEX COUNTY (19)

Society organized August 22, 1829. Regular meetings in February, May, September and December at time, place and date designated by President and Secretary.

ACTIVE MEMBERS

Aitken, Herbert M., Ogdensburg
Bergmann, Ewald H., 44 Bank st., Sussex
Boyd, William B., Jr., N. J. Zinc Co., Franklin
Burn, Victor E., 27 Trinity st., Newton
Caleca, Jack J., Andover
Cartisser, Joseph J., Stanhope
Catlett, George F., Newton
Coleman, Joseph G., Hamburg
Drake, Leo B., 47 Main st., Franklin
Eddy, Lester R., 40 Bank st., Sussex
Hill, Dean F., Sussex
Johnson, George F., Branchville
Kirschner, Martin I., Vernon
Landes, Edwin W., Stillwater
Longnecker, John E., Jr., Sparta
Lushear, Frank H., Branchville
Pellet, Thomas L., Hamburg
Piampiano, John, 27 Vernon av., Hamburg
Roy, Bert W., 25 Hamburg av., Sussex
Schmidt, Clifford M., 81 Main st., Newton
Scott, Frederick J., 1 Oak st., Franklin
Spencer, James H., Jr., Newton
Spurgeon, Dorsett L., 19 Church st., Newton
Stewart, Katherine E., Railroad av., Ogdensburg
Vermes, Leslie, 380 Rutherford av., Franklin
Weinstein, Robert A., 214 Spring st., Newton

UNION COUNTY (20)

Society organized June 7, 1869. Meets on second Wednesday of September, November, January, March, April, and May. Annual Meeting in April.

ACTIVE MEMBERS

Abel, Henri E., 339 Union av., Elizabeth
Abramson, Solomon, 1181 Jaques av., Rahway
Ackerman, Arthur F., 129 Summit av., Summit
Allen, Samuel L., 170 Union rd., Roselle Park
Anson, Leon J., 400 Center st., Garwood
Apfelbaum, Frederick M., 17 N. 10th st., Kenilworth
Armstrong, Lorrimer B., 121 S. Euclid av., Westfield
Arthur, Frances H., 138 Westfield av., Elizabeth
Austin, Thomas R., 19 Holly st., Cranford
Axinn, Charles, 146 W. Gibbons st., Linden
Babbitt, Hugh M., Jr., 950 Park av., Plainfield
Balsbaugh, Edward F., 440 E. Broad st., Westfield
Banker, George T., 655 Magie av., Elizabeth
Barberio, A. Arthur, 1337 Orange av., Union
Baron, Leo E., 26 Prospect pl., North Plainfield
Baruch, Hilde, 202 Stiles st., Elizabeth
Baruch, Rudolf J., 202 Stiles st., Elizabeth
Battaglia, Richard S., 400 E. Third av., Roselle
Bechet, Paul E., 1364 North av., Elizabeth
Beisler, Lawrence G., 1528 N. Broad st., Hillside
Belle, Louis, 948 Madison av., Elizabeth
Bender, Dorothea A., 61 DeHart pl., Elizabeth
Bensley, Maynard G., 129 Summit av., Summit
Berenson, Samuel J., 1012 E. Jersey st., Elizabeth
Berger, Harold R., 250 Elizabeth av., Elizabeth
Berman, Leonard M., 382 Springfield av., Summit
Berman, Sol, 351 Rahway av., Elizabeth
Berry, C. Hartley, 129 Summit av., Summit
Biber, David, 900 Stuyvesant av., Union
Birrell, Russell G., 56 Church st., Toronto 1, Canada
Black, Max S., 1320 St. George av., Linden
Blatt, David, 737 Jefferson av., Elizabeth
Bloch, Harry, 613 N. Broad st., Elizabeth
Blumberg, Jack, 504 Westminster av., Elizabeth
Blythe, Rowland P., 30 Springfield av., Cranford
Boehm, Herbert, 804 E. Jersey st., Elizabeth
Bolanowski, Kasimier J., 145 Marshall st., Elizabeth
Bomar, Wirrion L., 310 Plainfield av., Plainfield
Booth, Walter S., 744 Rahway av., Elizabeth
Borak, Peter, Merck & Co., Rahway
Bourns, Edward G., 203 S. Euclid av., Westfield
Boyd, Robert P., 210 Martine av., S., Fanwood
Boyer, Paul K., 129 Summit av., Summit
Boyes, James G., 1326 Chetwynd av., Plainfield
Braunwarth, Robert J., 555 S. Broad st., Elizabeth
Breen, James E., 418 Chestnut st., Union

Breslow, Alexander E., 930 Plerpont st., Rahway
Brethwaite, Samuel H., Jr., 129 Summit av., Summit
Brock, Howard F., 417 W. Broad st., Westfield
Brokaw, Christopher A., 615 N. Broad st., Elizabeth
Brown, Frank H., Jr., 327 Chestnut st., Roselle Park
Brown, L. Greeley, 173 Madison av., Elizabeth
Brown, William H., 501 Flrst av., Elizabeth
Bruno, Anthony, 1092 Elizabeth av., Elizabeth
Buchanan, Robert W., 129 Summit av., Summit
Buffey, Walter H., McGuire VA Hosp., Richm'd,Va.
Burritt, Norman W., 30 Beechwood rd., Summit
Butenas, Joseph J., 300 First av., Elizabeth
Callahan, Edward J., 124 St. Paul st., Westfield
Cannis, John P., 1019 Park av., Plainfield
Canright, Cyril M., 34 Springfield av., Cranford
Cantini, Raphael S., 727 Watchung av., Plainfield
Card, Charles F., 144 W. Milton av., Rahway
Cardinale, Pasquale F., 1405 North av., Elizabeth
Carlin, Edward J. M., 1423 Irving st., Rahway
Carlisle, J. Mallory, 550 Hillcrest av., Westfield
Carpenter, Cedric C., 97 Hobart av., Summit
Carroll, Bruce J., 469 W. Front st., Plainfield
Carsley, Sidney H., 19 Holly st., Cranford
Casey, Robert B., 51 W. Mliton av., Rahway
Casilli, Arturo R., 618 Newark av., Elizabeth
Castaldo, Neil, 103 Lincoin av., E., Cranford
Chaiken, Louis H., P. O. Box 51, Elizabeth
Chapman, Otis P., 400 Westminster av., Elizabeth
Childers, Robert J., 604 Park av., Plainfield
Chodosh, Maurice A., 606 Roosevelt av., Carteret
Coe, Edward M., 217 Holly st., Cranford
Cohen, Harry X., 1267 Stuyvesant av., Union
Cole, Walter H., Jr., 1060 E. Jersey st., Elizabeth
Colley, Arthur T., 916 Park av., Plainfield
Comunale, Anthony R., 1709 Irving st., Rahway
Conover, Elizabeth, 129 Summit av., Summit
Constad, Arnold N., 944 Stuyvesant av., Union
Conway, James V., 428 Elmora av., Elizabeth
Coplin, George J., 528 E. Jersey st., Elizabeth
Corbusier, Harold D., 612 Park av., Plainfield
Cox, William T. R., 345 S. Broad st., Elizabeth
Crabtree, Loren H., 505 Jersey av., Elizabeth
Crane, Norman T., 1025 Sleepy Hollow lane,Plainf'd
Cronin, Francis J., 730 South st., Elizabeth
Dalberg, Walter, 500 Cherry st., Elizabeth
Darlington, Charles G., 802 Belvidere av., Plainfield
Davidson, E. Norwell, 102 East Elm st., Linden
Davis, F. Cleveland, 129 Summit av., Summit
Davis, Stanton H., 212 E. Seventh st., Plainfield
Day, Willis B., 407 E. Seventh st., Plainfield
DeCesare, Ferdinand J., 500 Walnut st., RosellePark
Decker, Charles T., 275 Orchard st., Westfield
Deehl, Seymour R., 1026 E. Jersey st., Elizabeth
Demarest, Geraid B., 505 E. Broad st., Westfield
Demy, Nicholas G., 912 Prospect av., Plainfield
Dengler, Henry P., 260 Morris av., Springfield
Deutsch, Nathan S., 223 E. Fifth st., Plainfield
Diamond, J. George, 512 W. Front st., Plainfield
Diefendorf, Herbert W., 129 Summt av., Summit
Dinneen, James B., 503 Park av., Plainfield
Doggett, E. Hugh, 805 Park av., Plainfield
Doherty, Wiiliam, 830 N. Wood av., Linden
Dolsky, Irvlng, 509 N. Wood av., Linden
duBusc, L. C. Victor, 399 Westfield av., Elizabeth
Dudley, Henry G., 222 Sylvania pl., Westfield
Dunn, H. Irving, 610 Salem av., Elizabeth
Dupuy, Jean G., 850 Jersey av., Elizabeth
Durrah, Fred F., 310 Plainfield av., Plainfield
Dwoyer, Leon C., 420 N. Wood av., Linden
Eason, Samuel W., 48 De Forest av., Summit
Edgar, Malcolm S., 129 Summit av., Summit
Ehrlich, Max, 721 N. Broad st., Elizabeth
Esty, Geoffrey W., 629 E. Broad st., Westfield
Falcone, Albert M., 502 E. Broad st., Westfield
Falconer-Slater, Kath., Four Winds, Kotonah, N. Y.
Feleppa, Edward E., 618 Springfield av., Summit
Ferenchak, Ralph, 219 Martine av., N., Fanwood
Fiedler, Michael J., 2368 S. W. 4th st., Miami, Fla.
Figliolino, Francis, 272 W. Milton av., Rahway
Fink, Stanley J., 221 Chestnut st., Roselle
Fitch, Thomas S. P., 916 Park av., Plainfield
Folsome, Clair E., 1075 Central av., Plainfield
Forsberg, Roy T., 110 W. Fifth av., Roselle
Fort, William B., 147 E. Seventh st., Plainfield
Foster, Frank L., 320 Springfield av., Cranford
Frankel, Theodore H., 600 Crescent av., Plainfield
Franklin, Joseph E., 191 North av., Hillside
Franklin, Lewis J., 149 Jean ter., Union
Freeman, Ray M., 2011 St. Georges av., Rahway
Friedburg, George H., 1108 Anna st., Elizabeth
Friedlander, Aik, 213 Westfield av., Elizabeth
Frohwein, Ida H., 125 Morristown rd., Elizabeth
Gadomski, Casimir F., 331 S. Broad st., Elizabeth
Gallaway, George E., 163 W. Milton av., Rahway
Gannon, Joseph M., 149 Crescent av., Plainfield
Geary, Paul, 909 Park av., Plainfield
Geib, Margaret E., 1277 Clinton pl., Elizabeth
Gelber, Isaac, 712 N. Broad st., Elizabeth
Gerendasy, Julius, 956 E. Jersey st., Elizabeth
Giacona, Joseph, 221 Lincoln av., Union
Gibb, Alice S., 339 Union av., Elizabeth
Giglio, Alphonsus S. V., 626 Elizabeth av., Elizabeth
Gilpin, Fletcher, 118 North av., W., Cranford
Gittelman, Morton, 879 Newark av., Elizabeth
Glaser, Emanuel, 360 Linden av., Elizabeth
Glass, Benjamin E., 609 Watchung av., Plainfield
Glass, Harry L., 1009 Park av., Plainfield
Goldberg, Harry C., 7 Watchung av., Plainfield
Goldfield, Harold H., 225 E. Jersey st., Elizabeth
Goldmacher, Herman B., 113 Elmora av., Elizabeth
Goldstein, Herman H., 318 W. Jersey st., Elizabeth
Gonczy, Edward J., 420 Jersey av., Elizabeth
Goodspeed, William K., Oakwood rd., Watchung
Gordon, Norman W., 810 Canton st., Elizabeth
Grant, William E., 1370 Morris av., Union
Greco, Lionel A., Bonnie Burn Sana., Scotch Plains
Greenberg, Max, 29 W. Henry st., Linden
Griesemer, Laurence C., 515 Locust st., Roselle
Griesemer, Z. Lawrence, 1145 E. Jersey st., Elizab'th
Griswold, Merton L., Jr., 947 Park av., Plainfield
Guidi, Guldo M., 212 Christine st., Elizabeth
Hackett, Daniel C., 132 S. Euclid av., Westfield
Hall, Ralph A., 547 E. Broad st., Westfield
Hall, Winthrop H., 400 Elm st., Westfield
Hallock, Wiiton J., 650 Sprlngfield av., Summit
Hamley, John J., 153 Second st., Elizabeth
Hanrahan, James, 678 N. Broad st., Elizabeth
Hansen, Harry, 1006 Park av., Plainfield
Hanson, Carl G., 38 Springfield av., Cranford
Harris, Sidney, 301 W. Fifth av., Roselle
Hawkins, Edward R., 336 Someroulas st., B.Rouge,L.
Hely, Charles J.,Jr., 564 Summit av., Westfield
Heminway, Norman L.,106 Short Hills av.,Sh'rt Hills
Herrington, Lee R., 643 E. Broad st., Westfield
Hill, Clarence T., 116 E. Hazelwood av., Rahway
Hipple, Percy L., 118 E. Fifth av., Roselle
Hirsch, Albert, 1554 Irving st., Rahway
Hirsch, Lucien, 160 E. Seventh st., Plainfield
Hnat, Frederick, 565 Newark av., Elizabeth
Hoch, Samuel M., 240 Hillside rd., Elizabeth
Hoffman, Charles A., 302 E. Seventh st., Plainfield
Hoffman, Harry, 805 Park av., Plainfield
Holland, Reuben J., 1026 Chandler av., Linden
Holmes, Grace A., 1077 E. Jersey st., Elizabeth
Holt, Evelyn, 261 Springfield av., Summit
Holtzman, Michael, 734 N. Broad st., Elizabeth
Hopper, Guy R., 147 Elmer st., Westfield
Horoschak, Anne, 974 Park av., Plainfield
Horre, George W. H., 203 W. Jersey st., Elizabeth
Humphrey, Hubert G., 430 Downer st., Westfield

Hunt, Thomas F., 528 Monroe av., Elizabeth
Hutton, Frederick T., 717 Watchung av., Plainfield
Imbleau, Joseph E. L., 2106 Morris av., Unionville
Jacobs, Alan L., 1243 Stuyvesant av., Union
Johnson, Harold F., 734 Park av., Plainfield
Jones, Herbert E., 6 Hillside rd., Elizabeth
Jones, Lewis H., 139 E. Grant av., Roselle Park
Judd, Joseph, Jr., 300 Westfield av., Elizabeth
Kandra, Paul H., 153 Mountain av., Westfield
Kaplan, Samuel D., 615 N. Broad st., Elizabeth
Kapp, Carl G., 440 Westminster av., Elizabeth
Karel, Jack R., 407 Jersey av., Elizabeth
Karnay, Francis, 348 Pine av., Garwood
Karshmer, Ernest E., 420 Wood av., N., Linden
Katz, Theodore, 540 S. Wood av., Linden
Kaycoff, Aaron J., 1063 North av., Elizabeth
Keeney, Cadwell B., 137 Summit av., Summit
Keil, Sigmund S., 1118 St. George av., E., Linden
Kemeny, George, 39 Third st., Elizabeth
Kennedy, John N., 831 Madison av., Plainfield
Kent, Louis R., 1974 St. Georges av., Rahway
Kertis, Eugene R., 272 E. Second av., Roselle
Kidd, Ruth W., 1199 Morris av., Union
Klapper, Lester L., 967 Park av., Plainfield
Kloby, John J., 562 Bayway, Elizabeth
Knauer, George, 930 Elizabeth av., Elizabeth
Knight, Richard vanD., 129 Summit av., Summit
Konzelman, Henry J., 65 King st., Hillside
Kramer, Douglas W., 1019 Park av., Plainfield
Krans, Edward S., 920 Park av., Plainfield
Kreutz, Paul J., 363 Union av., Elizabeth
Kuchlewski, Edward J., 224 E. Jersey st., Elizabeth
Kushner, Alexander, 208 W. Milton av., Rahway
Kyle, Ernest I., 205 W. Ninth st., Plainfield
Labow, Joseph J., 757 N. Broad st., Elizabeth
Ladas, George, 305 Cherry st., Elizabeth
Lance, Elton W., 125 W. Milton av., Rahway
Lane, Milton, 900 Stuyvesant av., Union
Lang, Louis, 947 E. Jersey st., Elizabeth
Langston, Junius T., 521 E. Second st., Plainfield
Larrabee, Callie H., 10 Irving pl., Summit
Lathrop, Frederic W., 909 Park av., Plainfield
Leggett, Lindley H., Jr., 330 E. Broad st., Westfield
Leggett, Thomas H., Jr., 706 Park av., Plainfield
Leone, Peter P., 27 Princeton rd., Elizabeth
Lepree, Joseph A., 371 Morris av., Elizabeth
Lerman, Frederick, 1024 E. Jersey st., Elizabeth
Lerman, Irving, 1024 E. Jersey st., Elizabeth
Lerman, Samuel, 116 Brightside av., Pikesville, Md.
Lewis, Albert, 41 Retford av., Cranford
Lewis, Alexander, 113 E. Milton av., Rahway
Lewis, Robert L., Jr., 636 Westminster av., Elizabeth
Lieberman, David P., 597 Westminster av., Elizab'h
Lieberman, Milton L., 101 Pershing av., Roselle Pk.
Lilien, Milton M., 152 Clark st., Hillside
Linke, James J. P., 245 E. Front st., Plainfield
Livengood, Horace R., 587 Westminster av., Elizab'h
Livingston, Sydney R., 650 W. 7th st., Plainfield
Llull, Gabriel J., 266 Morris av., Springfield
Loizeaux, Edward C., 320 E. 7th st., Plainfield
Loizeaux, Theodore, 212 E. 7th st., Plainfield
Lomax, Charles L., 417 W. Broad st., Westfield
Losada, Camella A., Cathedral Sta. Box 154, N.Y.C.
Lowell, Milton E., 434 Summit av., Westfield
Lowenberg, Robert I., 74 Hawthorne pl., Summit
Lowenstein, Ernest C., 259 W. Milton av., Rahway
Lufburrow, Charles B., 441 W. Front st., Plainfield
Lyerly, James M., 815 Park av., Plainfield
Lynch, Edward T., 748 Livingston rd., Elizabeth
MacDonald, Edward O., 719 Locust st., Roselle Park
Mackler, Harry S., 752 N. Broad st., Elizabeth
Maggio, Ross J., 206 Park av., Westfield
Malatesta, Charles S., 1203 Martine av., Plainfield
Mallison, Herbert, 819 Park av., Plainfield
Marchigiano, Michael A., 88 Westfield av., Rahway
Marone, Carmine R., 752 Newark av., Elizabeth
Maroney, James H., 129 Summit av., Summit
Martin, William E., 110 Claremont pl., Cranford
Marts, George H., 956 Park av., Plainfield
Mast, Joseph E., 42 Westfield av., E., Roselle Park
Mastroianni, Frank M., 634 Sherman av., Roselle Pk.
Maurer, Martha E., 153 Mountain av., Westfield
McAlpine, Paul, 129 Summit av., Summit
McCallion, Wm. H., 722 Westminster av., Elizabeth
McClintock, Elsie, 1439 Maple av., Hillside
McGeary, John A., 610 Salem av., Elizabeth
McGinn, William J., 1913 Westfield av., ScotchPlains
Mechanik, Harvey K., 121 E. Seventh st., Plainfield
Meeker, John L., 6 De Barry pl., Summit
Meineke, William C., Jr., 820 Chestnut st., Roselle
Mensch, Harvey G., 1117 Mary st., Elizabeth
Merlo, Francis A., 210 Murray st., Elizabeth
Merlo, Francis V., 33 Prince st., Elizabeth
Miller, George M., 288 Elm av., Rahway
Miller, Robert M., 36 Woodland av., Summit
Milliser, Estelle T., 126 N. Euclid av., Westfield
Mineur, Henry J., 117 Alden st., Cranford
Mohr, Frank L., 560 Morris av., Summit
Moon, Dabney vonK., 706 Park av., Plainfield
Morris, Karl E., 648 E. Broad st., Westfield
Morris, Thomas M., 505 Park av., Plainfield
Morris, Watson B., 193 Morris av., Springfield
Murphy, Herschel S., 320 Chestnut st., Roselle
Murray, Norman L., 129 Summit av., Summit
Naidorff, Saul A., 421 W. Seventh st., Plainfield
Nelson, Francis B., 275 Orchard st., Westfield
Nevins, Thomas F., Jr., 105 Linden av., Westfield
Nevius, John K., Jr., 1165 Park av., Plainfield
Newbury, Graham C., 209 Miln st., Cranford
Nittoli, Rocco M., 660 E. Jersey st., Elizabeth
Novello, Joseph A., 641 Second av., Elizabeth
Nussbaum, Joseph, 321 Elmora av., Elizabeth
Obester, Gabriel E., 640 N. Broad st., Elizabeth
O'Brian, E. Raymond, 831-B E. Front st., Plainfield
O'Brien, Edwin J., Jr., 503 Park av., Plainfield
Oderr, Charles, 121 S. Euclid av., Westfield
Orton, Foster, 196 Elm av., Rahway
Orton, George L., 196 Elm av., Rahway
Orton, Stuart, 196 Elm av., Rahway
Osher, Morris M., 100 Martine av., N., Fanwood
Owen, Philip, 973 Salem rd., Union
Palin, George, 27A Wavecrest av., Winfield
Palmer, Harris H., 6 Willow Grove Pkwy., Westfield
Palumbo, Vincent A., 22nd & Boulevard, Kenilworth
Pearl, Sydney S., 837 Park av., Elizabeth
Peters, Richard C., 963 Park av., Plainfield
Phelan, Walter F., 124 Chilton st., Elizabeth
Pierson, Howard W., Jr., 926 Park av., Plainfield
Pogge, Raymond C., 816 Central st., Plainfield
Pogue, Elbert H., 168 Madison av., Elizabeth
Polk, Charles C., 114 E. Seventh av., Roselle
Pollack, Louis, 2052 Morris av., Union
Pollack, Sol, 1906 Boulevard, Union City
Potekhen, George P., 1232 Park av., Plainfield
Prazak, Beatrice, 1024 E. Jersey St., Elizabeth
Preminger, Max, Waverly Hills San., Wav. Hills,Ky.
Proudfoot, Perry A., 527 Walnut st., Roselle
Puller, Hyman, 217 Chestnut st., Roselle
Read, Jessie D., 519 Lenox av., Westfield
Reale, Frank P., 630 E. Second st., Plainfield
Reich, Jerome J., 1500 N. Broad st., Hillside
Reilly, David F., 44 Prince st., Elizabeth
Reilly, John, Jr., 222 Elizabeth av., Elizabeth
Relyea, George M., 129 Summit av., Summit
Repta, Stephen, 2165 Morris av., Union
Robertson, Grace M., 515 W. Seventh st., Plainfield
Robinson, Anne W., 177 Outer dr., Oak Ridge, Tenn.
Rogers, Herman C., Bonnie Burn Sana., Scotch Pls.
Rosenblatt, Max B., 150 Westfield av., Elizabeth
Rosenstein, Saivel L., 2120 Springfield av., Vauxhall

Rowen, Manuel J., 133 W. Jersey st., Elizabeth
Rozett, Oscar, 19 Prospect st., Summit
Rubin, David, 200 E. Jersey st., Elizabeth
Rumsey, Wm. L., Jr., 1336 North av., Elizabeth
Runnells, John E., Bonnie Burn San., Scotch Plains
Sadoff, Joseph, 504 Westminster av., Elizabeth
Sagi, Ellen I., 376 Elmora av., Elizabeth
Salvati, Leo H., 275 Orchard st., Westfield
Samuels, S. Lawrence, 1111 Park av., Plainfield
Satulsky, Emanuel M., 737 N. Broad st., Elizabeth
Sauerbrun, Bertram J. L., 681 Newark av., Elizabeth
Scalessa, Mario F. T., 209 Ashland rd., Summit
Schenk, Joseph R., 1177 Park av., Plainfield
Schiller, Rosa O., 523 Westfield av., Elizabeth
Schilling, Anthony B., 727 Jefferson av., Elizabeth
Schillinger, Raphael, 858 Summit av., Westfield
Schirmer, William, 1018 N. Broad st., Hillside
Schlein, David, 812 N. Wood av., Linden
Schley, Richard L., Jr., 114 W. Gaston st., Savan'h,G.
Schwartz, Samuel H., 916 Park av., Plainfield
Schweizer, Roman G., 36 Summit rd., Elizabeth
Scott, Kenneth H., Jr., 734 Park av., Plainfield
Seidmon, Edward E., 221 W. Seventh st., Plainfield
Sell, Frederick W., 167 W. Emerson av., Rahway
Sena, Dominic R., Univ. Hosp., Coral Gables, Fla.
Senerchia, Fred F., Jr., 457 Union av., Elizabeth
Seybold, Arthur D., 1080 Rahway rd., Plainfield
Seymour, George A., 253 Orchard st., Elizabeth
Shangle, Milton A., 34 Prince st., Elizabeth
Shapiro, Max, 414 Elizabeth av., Elizabeth
Sheedy, John J., 121 E. Seventh st., Plainfield
Shepard, Adele C., 818 Summer st., Elizabeth
Shepard, Morse A., 17 N. 18th st., Kenilworth
Silverman, Theodore M., 105 Elmora av., Elizabeth
Singer, Bella, 640 Wyoming av., Elizabeth
Sly, John L., 382 Springfield av., Summit
Smith, J. James, 818 N. Broad st., Elizabeth
Snyder, Howard P., 610 Salem av., Elizabeth
Sordill, Anthony, 1114 Grandview av., Westfield
Speer, Charles A., 19 Holly st., Cranford
Spence, Harold G., 26 Badeau av., Summit
Spirito, Michael W., 219 S. Broad st., Elizabeth
Spivack, David, 315 W. Jersey st., Elizabeth
Spivack, Seymour E., 405 Chestnut st., Roselle
Staub, E. Milton, 505 E. Broad st., Westfield
Staub, Wilfred A., 531 E. Broad st., Westfield
Steele, Stephen, 10 West Gibbons st., Linden
Steffens, Charles T., 612 Park av., Plainfield
Stein, Emil, 607 Park av., Elizabeth
Stein, George H., 640 Wyoming av., Elizabeth
Stein, Isadore, 817 N. Broad st., Elizabeth
Stein, Martin H., 60 Elmora av., Elizabeth
Steinberg, Werner, 35 Gesner st., Linden
Stephenson, Gordon A., 145 Summit av., Summit
Stevenson, G. McKay, 129 Summit av., Summit
Strelinger, Alexander, 650 N. Broad st., Elizabeth
Strom, Abraham, 410 W. Seventh st., Plainfield
Stuart, J. Earle, 552 E. Second st., Plainfield
Stybel, Joseph, 507 Park av., Plainfield
Suffness, Gustave, 970 Park av., Elizabeth
Sweeney, Ralph E., 348 Elmora av., Elizabeth
Taranto, Michael, 13 E. Gibbons st., Linden
Tator, Arthur E., 57 DeForest av., Summit
Thompson, Minturn R., 530 W. Broad st., Westfield
Thompson-Bohne, Mildred H., 62 Elm st., Summit
Tolor, Stanley, 405 Westminster av., Elizabeth
Tomlinson, Rolland D., 505 E. Broad st., Westfield
Townsend, Leslie M., 420 Chestnut st., Roselle Park
Trano, Giovanni, 941 E. Jersey st., Elizabeth
Triarsi, Anthony J., 702 Third av., Elizabeth
Triolo, John V., 598 Springfield av., Summit
Tyndall, Alice E., 263 Walnut st., Westfield
Tyndall, Martha W., 263 Walnut st., Westfield
Vinciguerra, Michael, 604 Westminster av., Elizabeth
Vitale, Dominic V., 749 N. Broad st., Elizabeth
Vogel, H. Austin, 1060 E. Jersey st., Elizabeth
Vogel, Nathan F., 297 Morris av., Springfield
Wacker, William F., 1224 Salem av., Hillside
Wagner, Richard, 915 Springfield av., N. Providence
Walsh, Ronald J., 338 S. Broad st., Elizabeth
Walsh, Thomas J., 335 S. Broad st., Elizabeth
Ward, Leo J., 137 W. Jersey st., Elizabeth
Webb, Eleanor A., 887 Springfield av., Summit
Wegryn, Louis S., 257 Elizabeth av., Elizabeth
Weigel, Edgar W., 210 W. Jersey st., Elizabeth
Weigel, Elmer P., 727 Watchung av., Plainfield
Weissberg, Jonas, 470 Jefferson av., Elizabeth
Weissberg, William W., 800 N. Broad st., Elizabeth
Weissman, Meyer T., 1137 E. Jersey st., Elizabeth
Weitz, Abraham, 2512 S. Chester av., Bakersfield,Cal.
Weltchek, Herbert, 439 Jersey av., Elizabeth
Whitken, Albert I., 1056 North av., Elizabeth
Widdowson, William W., Bell Tele. Lab., Mur. Hill
Willetts, Arthur T., 129 Summit av., Summit
Williams, Frank A., 324 W. Jersey st., Elizabeth
Williams, Leonard D., 726 Watchung av., Plainfield
Williams, Manley C., 735 E. Milton av., Rahway
Wolff, Jerome M., 935 Park av., Plainfield
Wolgin, Philip L., 445 Elmora av., Elizabeth
Wuester, William O., 238 Exeter way, Hillside
Yellin, Charles H., 915 Jersey av., Elizabeth
Yood, Harold S., 401 Grant av., Plainfield
Yorke, Edward T., 1717 N. Wood av., Linden
Young, Franklin C., 120 Summit av., Summit
Young, Ralph A., 842 N. Wood av., Linden
Yuckman, Robert O., 701 Madison av., Elizabeth
Zeitlin, Herman H., 943 N. Wood av., Linden
Zirpolo, Gene A. V., 1128 Bryant st., Rahway

HONORARY MEMBER

Guidi, Guido M., Elizabeth

EMERITUS MEMBER

Wade, Simon F., Milford, Pa.

WARREN COUNTY (21)

Society organized February 15, 1826. Meets on third Tuesday of January, April, July and October, the last being the Annual Meeting.

ACTIVE MEMBERS

Adler, Hubert J., 91 Morris av., Phillipsburg
Baldauf, Herman, Jr., 210 Greenwich st., Belvidere
Bartolini, Frank, 122 Belvidere av., Washington
Bertland, Alexander D., Belvidere av., Washington
Bloom, G. Homer, 674 Hillcrest Blvd., Phillipsburg
Boquist, Walter A., 380 Hudson st., Phillipsburg
Bossard, Harry B., R. D. 2, Phillipsburg
Bostwick, Wallace R., Main st., Blairstown
Brasefield, Edgar N., 218 Chambers st., Phillipsburg
Buchanan, Ralph M. L., 8 Market st., Phillipsburg
Cooper, Ray C., E. Washington av., Washington
Drake, Paul F., 85 Summit av., Phillipsburg
Genninger, Lewis E., 8 Market st., Phillipsburg
Humbert, Joseph C., Jr., Stewartsville
Kassow, Philip B., North Blvd., Alpha
Kimmel, Seymour S., Oxford
Krausz, Emery, 577 S. Main st., Phillipsburg
Lemmon, Junius M., 137 Belvidere av., Washington
Marlett, Neumann C., 230 Greenwich st., Belvidere
Martin, Francis E., 130 Mansfield st., Belvidere
McDonald, John, Jr., 322 Fifth st., Belvidere
Michell, George E., 221 High st., Hackettstown
Miller, Charles E., 228 Main st., Hackettstown
Potter, Charles W., 184 Belvidere av., Washington
Ringe, Charles L., Jr., Blair pl., Blairstown
Schulman, Jesse, 111 Forest av., Lakewood
Sheffield, Doreen R. C., R. D. 1, Oxford
Shevitz, David M., 212 Grand av., Hackettstown
Shimer, Floyd A., 88 Lewis st., Phillipsburg
Smith, Herman, 306 Bates st., Phillipsburg
Spillane, Timothy H., 379 S. Main st., Phillipsburg
Stone, Russell B., 56 Summit av., Phillipsburg
Szittya, Sandor, 95 S. Main st., Phillipsburg
Varney, William H., 122 Belvidere av., Washington
West, Guernsey F., Barrymore st., Phillipsburg
Wolf, Frank A., 494 S. Main st., Phillipsburg
Zdanowicz, Stefan J., 117 Grand av., Hackettstown
Zuck, Arthur C., 22 Broad st., Washington

EMERITUS MEMBER

Gordon, Frank S., Blairstown

An Alphabetical List of the Members of The Medical Society of New Jersey

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

COMPILED MARCH 1, 1949

A

ACTIVE MEMBERS

Abarbanel, Milton G., 301 Rochelle av., RochelleP.(2)
Abbamonte, Louis W., 226 N. Park st., E. Orange(7)
Abbott, Charles C., 32 Main st., Lodi (2)
Abel, Arthur R., Orange Mem. Hosp., Orange (7)
Abel, Henri E., 339 Union av., Elizabeth (20)
Abers, Bernard D., 565 Summit av., Jersey City (9)
Abey, William J. H., 65 S. Main st., Pennington (11)
Abraham, Albert, 15 Altamont ct., Morristown (14)
Abramo, Anthony E., 141 Glen av., Midland Pk. (16)
Abrams, Abram B., 299 Clinton av., Newark (7)
Abrams, Henry, 195 Nassau st., Princeton (11)
Abramson, Harry, 14 W. Young st., Somerville (18)
Abramson, Solomon, 1181 Jaques av., Rahway (20)
Achtentuch, Herman, 113 Sherman st., Passaic (16)
Ackerhalt, Martin J., 408 Clifton av., Clifton (16)
Ackerman, Arthur F., 129 Summit av., Summit (20)
Ackley, David B., 21 N. Clinton av., Trenton (11)
Adelman, Benjamin B., 186 Clinton av., Newark (7)
Adelson, Edward T., 201 Keer av., Newark (7)
Adler, Fritz F., 777 Market st., Paterson (16)
Adler, Howard E., 103 Livingston av., N.Br'sw'k(12)
Adler, Hubert J., 91 Morris av., Phillipsburg (21)
Adler, Lydia, 103 Livingston av., N. Brunswick (12)
Adler, Samuel, 229 Broad st., Red Bank (13)
Africano, Julius V., 43 Columbia ter., Weehawken(9)
Africano, Scipio H., 526 15th st., Union City (9)
Agayoff, John D., 127 S. Wash'gton av., Bergenf'd(2)
Agnew, Hobart M., 17 Plymouth st., Montclair (7)
Agolia, Michael W., 2201 Palisade av., Union City(9)
Aitken, Frank J., 62 N. Pearl st., Bridgeton (6)
Aitken, Herbert M., Ogdensburg (19)
Albano, Edwin H., 144 Harrison st., East Orange (7)
Albano, Frank J., 535 N. Seventh st., Newark (7)
Albano, Joseph, 535 N. Seventh st., Newark (7)
Albert, Perry, 2780 S. Broad st., Trenton (11)
Albini, Mario, 204 Fifth st., Hoboken (9)
Albright, Louis F., 118 Madison av., Spring Lake(13)
Alcamo, John H., 321 S. Ninth st., Newark (7)
Alcaro, Joseph A., 85 Summit av., Wharton (14)
Alessi, Alfred A., 174 Merrison st., Teaneck (2)
Alexander, John W., 308 Main st., Orange (7)
Alexander, Samuel, 108 Pascack rd., Park Ridge (2)
Alexander, Stewart F., 108 Pascack rd.,Park R'ge(2)
Alexander, Walter G., 48 Webster pl., Orange (7)
Alford, Ralph I., 83 Park st., Montclair (7)
Allan, James S., 144 Harrison st., East Orange (7)
Allar, Ellis H., 115 St. Charles pl., Atlantic City (1)
Allegrante, Anthony J., Wash'gt'nV.rd.,Mart'sv'e(18)
Allen, Arthur A., 365 Park av., Paterson (16)
Allen, Chester B., Jr., 42 Gordonhurst av., M'tcl'r(7)
Allen, Edwin J., 269 Carroll st., Paterson (16)
Allen, James M., 585 Main st., Passaic (16)
Allen, Raymond N., 144 Harrison st., E. Orange (7)
Allen, Samuel L.. 170 Union rd., Roselle Park (20)
Alling, Frederic A., 15 Washington st., Newark (7)
Allman, David B., 104 St. Charles pl., Atl. City (1)
Alpert, Edward, 661 Jersey av., Jersey City (9)
Alpert, Sidney, 235 Fourth st., Lakewood (15)
Alpren, Bernard F., 17 Church st., Paterson (16)
Alter, Nicholas M., 410 Fairmount av., Jer. City (9)
Alterbaum, George, 25 Park av., Caldwell (7)
Altman, Charles D., 63 Forest Hill rd., W. Or. (7)
Altschul, Frank J., 177 Garfield av., L. Branch (13)
Amato, John R., 1134 Broad st., Newark (7)
Ambrose, Anthony, 15 Washington st., Newark (7)
Ambrose, Francis, 445 15th av., Paterson (16)
Ambrose, Frederick H., 304 E. High st.,B.Brook(18)
Ambrose, Robert R., 304 E. High st., B. Brook (18)
Amdur, Louis A., 2540 Boulevard, Jersey City (9)
Amster, Milton W., 9 Chapman pl., Irvington (7)
Anastor, Herbert C., 641 Wood st., Vineland (6)
Anderson, Ethelyn J., 195 Euclid av.,Ridge'f'd Pk.(2)
Anderson, John F., 195 College av., N. Brunsw'k(12)
Anderson, Merton B., 727 Walnut st., Camden (4)
Anderson, Reuben M., 15 Anderson st., Hack'ns'k(2)
Anderson, Robert C., 686 Mt. Prospect av., New'k(7)
Anderson, William A., 1310 Broad st., Bloomfield(7)
Anderson, Windom E., 481 Broad st., Newark (7)
Andrews, Albert G. K., P.O. Box 743, Passaic (16)
Andrews, Clarence L., 1616 Pacific av., Atl. City (1)
Andrews, Thomas H., 363 Bath av., Long Branch(13)
Andrick, Eugene A., 99 Sheridan av., Hohokus (2)
Andrus, David L., 805 Cooper st., Camden (4)
Angelillo, Marc C., 177 Elwood av., Newark (7)
Angelo, Joseph A., Bank bldg., Secaucus (9)
Angioletti, Louis V., 1617 Palisade av., Fort Lee (2)
Annitto, John E., 170 Belmont av., Jersey City (9)
Anrig, Grace E., 613 Summit av., Union City (9)
Anson, Leon J., 400 Center st., Garwood (20)
Antonius, Nicholas A., 27 W. Market st., Newark (7)
Antopol, William A., 24 Stengle av., Newark (7)
Anuario, Charles B., 365 S. Centre st., Orange (7)
Apfelbaum, Frederick M., 17 N.10th st.,Kenilw'th(20)
Apple, Stanley B., 1520 Brunswick av., Trenton (11)
Applebaum, Irving L., 31 Lincoln Park, Newark (7)
Applestein, Robert, 568 E. State st., Trenton (11)
Appleton, Ralph, Lincoln av., Point Pleasant (15)
Appold, George D., 60 E. Church st., Bergenfield (2)
Apter, Abraham H., 45 Church st., Paterson (16)
Aria, Charles J., 1818 Boulevard, Jersey City (9)
Aria, Michael H., 31 Glenwood av., Jersey City (9)
Armstrong, Lorrimer B., 121 S. Euclid av., W'tf'd(20)
Aronis, Harry R., 935 W. State st., Trenton (11)
Aronoff, Herman L., 225 Claremont av., Jer. City (9)
Arons, Harry, 31 Lincoln Park, Newark (7)
Aronsohn, Charles M., 459 Park av., Paterson (16)

Artaserse, George V., 185 Bergen av., Jersey City (9)
Arthur, Frances H., 138 Westfield av., Elizabeth (20)
Asbell, Nathan, 326 Cooper st., Camden (4)
Ash, Arthur F., 710 Boulevard, E., Weehawken (9)
Ash, Frank W., 180 Carroll st., Paterson (16)
Ash, Samuel, 866 So. 13th st., Newark (7)
Ashley, Harmon H., 20 Nassau st., Princeton (11)
Assante, M. Hugo, 120 White Horse pk., Clem't'n(4)
Aszody, Paul, 340 Waverly av., Newark (7)
Athey, Kenneth L., 3616 Westfield av., Camden (4)
Atkinson, John M., 93 Greenwood av., Madison (14)
Atwood, Edward A., 360 Park av., Paterson (16)
Auerbach, Friedrich, 490 Stuyvesant av., Irv'gt'n(7)
August, Jacob, 149 Rhode Island av., E. Orange (7)
Auriemma, Michele, 421 Adams st., Hoboken (9)
Austin, Henry J., 96 Bellevue av., Trenton (11)
Austin, Thomas R., 19 Holly st., Cranford (20)
Autorino, Ralph R., 10 Harrison av., Montclair (7)
Averbach, Jacob, 435 Clifton av., Clifton (16)
Avery, Philip S., Woodland ter., Bound Brook (12)
Axilrod, Maurice H., 2620 Pacific av., Atl. City (1)
Axinn, Charles, 146 W. Gibbons st., Linden (20)
Aymar, Dorothy, 608 Fourth st., Union City (9)

ASSOCIATE MEMBER

Axilrod, Herb. D., 107 Warren st., Hamden, Conn.(1)

B

ACTIVE MEMBERS

Babbitt, Hugh M., Jr., 950 Park av., Plainfield (20)
Bachmann, William, 87 Hillcrest ter., E. Orange (7)
Bacon, Mary, 278 E. Commerce st., Bridgeton (6)
Bacote, Ernest F., 680 High st., Newark (7)
Baer, Irving, 65 Branch av., Red Bank (13)
Baeseman, R. Winfield, 112 Main st., Allenh'st (13)
Bahnson, Conrad M., 170 Bowers st., Jersey City (9)
Bailyn, Emanuel, 400 60th st., West New York (9)
Baime, Jules E., 72 Prospect st., East Orange (7)
Baiocchi, Pascal J., 203 Hunterdon st., Newark (7)
Baker, Augustus L., 389 W. Blackwell st., Dover(14)
Baker, Augustus L., Jr., 389 W. Bl'kw'l st.,Dover(14)
Baker, Banks S., 618 Benson st., Camden (4)
Baker, Elsworth F., 58 Reckless pl., Red Bank (13)
Baker, Hugh W., 8th & Elmer sts, Vineland (6)
Baker, Maclyn F., 987 Sanford av., Irvington (7)
Baker, Maurice E., 1149 Kaighn av., Camden (4)
Baker, Philip W., High Bridge (10)
Baldauf, Herman, Jr., 210 Greenwich st.,Belvid'e(21)
Baldini, Charles F., Jr., 513 15th st., Union City (9)
Baldini, Howard E., 513 15th st., Union City (9)
Baldwin, Charles H., 2829 Atlantic av., Atl. City (1)
Baldwin, John F., 58 Ayers ct., W. Englewood (2)
Balis, Samuel B., 67 Baldwin av., Newark (7)
Balles, Edward S., 392 Park av., Paterson (16)
Balogh, William A., 315 Dunellen av., Dunellen (12)
Balsamo, Anthony J., 16 Enos pl., Jersey City (9)
Balsamo, Joseph J., 224 So. Eighth st., Newark (7)
Balsbaugh, Edward F., 440 E. Broad st., Westf'd(20)
Balson, Zachary D. B., 49 Osborne ter., Newark (7)
Balze, Henry R., 218 Broad av., Leonia (2)
Bambara, Aurelius J., Flemington (10)
Banker, George T., 655 Magie av., Elizabeth (20)
Banta, Edward E., 64 Peters pl., Red Bank (13)
Banta, Raymond E., 288 Orchard pl., Ridgewood (2)
Bar, Samuel, Englishtown (13)
Barb, Kirk B., 1303 Princess av., Camden (4)
Barbano, Alfred J., 225 Hale st., New Brunswick(12)
Barbarito, William N., 135 Bentley av., Jer. City (9)
Barbash, Roslyn H. W., 835 Red rd., Teaneck (2)
Barbella, Joseph D., 498 N. 13th st., Newark (7)
Barberio, A. Arthur, 1337 Orange av., Union (20)
Barbour, George E., 118 W. High st., Somerville (18)
Bardfeld, Benjamin B., 509 Landis av., Vineland (6)
Barkhorn, Charles W., 223 Roseville av., Newark (7)
Barkhorn, Henry C., 45 Johnson av., Newark (7)
Barlow, Frank A., 205 D'tm'h st.,N.,St.Pet'sb'gF.(16)
Barlow, G. Barton, 157 Engle st., Englewood (2)
Barlow, John D., 232 Stockton st., Hightstown (11)
Barnard, Frank G., 79 Hawthorne pl., Montclair (7)
Barnes, William J., 155 Engle st., Englewood (2)
Barnett, Lester A., 300 Deal Lake dr., Asbury P.(13)
Barnhardt, Russell A., 10 Deerfield rd., Parlin (12)
Barnshaw, Harold D., 406 Cooper st., Camden (4)
Barolsky, Benjamin, 452 15th av., Paterson (16)
Baron, Herbert A., 150 Terrace av., Hasbr'k Hts.(2)
Baron, Leo E., 26 Prospect pl., N. Plainfield (20)
Barone, Francis A., 94 Lembeck av., Jersey City (9)
Barone, Leo J., 392 Van Houten st., Paterson (16)
Barr, Joseph, 975 Madison av., Paterson (16)
Barrett, James, 252 N. Arlington av., E. Orange (7)
Barrett, John E., 220 Woodside av., Newark (7)
Barrett, Joseph F., 230 Parker av., Maplewood (7)
Barroway, James N., 2714 Westfield av., Camden (4)
Barrows, Victor I., Lakeside Farm, Oxford, Maine(5)
Barry, R. Grant, 908 W. State st., Trenton (11)
Bartolini, Frank, 122 Belvidere av., Washington(21)
Baruch, Hilde, 202 Stiles st., Elizabeth (20)
Baruch, Rudolf J., 202 Stiles st., Elizabeth (20)
Basralian, Joseph B., 333 Wash'gt'n pl.,Hasb'kHts(2)
Bass, Morris, 414 Chancellor av., Newark (7)
Bass, Rose D., 54 Lyons av., Newark (7)
Bassett, Lavern C., 320 New Market rd., Dunell'n(12)
Bassett, Norman H., 1616 Pacific av., Atlantic C.(1)
Bassett, Samuel, 355 Washington av., Dumont (2)
Battaglia, Albert J., 62 Hunter st., Woodbury (8)
Battaglia, Richard S., 400 E. Third av., Roselle (20)
Bauch, Solomon, 564 Hawthorne av., Newark (7)
Baum, Felix, 406 Centre st., South Orange (7)
Baum, Lewis F., 406 Centre st., South Orange (7)
Baum, Otto, 406 Centre st., South Orange (7)
Baum, Samuel, 10 Osborne ter., Newark (7)
Bauman, Everett O., 862 S. 13th st., Newark (7)
Bauman, Rush C., 92 High st., Nutley (7)
Baxt, Sidney J., 544 21st av., Paterson (16)
Bayer, Eric C., 307 E. Madison av., Dumont (2)
Bayer, Harold J., 1616 Pacific av., Atlantic City (1)
Bayne, Joseph K., Army (11)
Beairsto, Everett B., 224 W. State st., Trenton (11)
Beall, William T., Main st., Clarksboro (8)
Beard, James R., Jr., Taff dr., Millington (14)
Beatty, Hannah J., Clinton Farms, Clinton (10)
Beaver, Jennie D., 44 Elm st., Morristown (14)
Bechet, Paul E., 1364 North av., Elizabeth (20)
Becker, C. Frederick, 620 Benson st., Camden (4)
Becker, Frank F., 337 E. Ridgewood av.,Ridgew'd(16)
Becker, George L., 646 E. 28th st., Paterson (16)
Becker, Leo V., 69 Ward st., Paterson (16)
Becker, Martin, 66 Hawthorne av., East Orange (7)
Becker, Marvin C., 299 Clinton av., Newark (7)
Becker, Meyer, 219 Amboy av., Metuchen (12)
Becker, Sidney D., 140 Maple pl., Keyport (12)
Becker, Sylvia F., 299 Clinton av., Newark (7)
Bednarz, Stephen, 219 Maple av., Wallington (2)
Bedrick, John J., 945 Avenue C, Bayonne (9)
Beer, Sanel, 137 Washington st., Norwich, Conn.(7)

Behrens, Herman H. E., 312 Webster av., Jer. C. (9)
Beideman, Casper M., 5 W. Maple av.,Merchantv'e(4)
Beim, Norbert, 660 Broadway, Paterson (16)
Beir, Ily R., 3900 Atlantic av., Atlantic City (1)
Beirne, Donald P., 52 N. Arlington av., E. Orange(7)
Beisler, Lawrence G., 1528 N. Broad st., Hillside (20)
Bekampis, Eugene H., 315 E. Maple av., Mech'tv'e(4)
Belafsky, Henry A., 150 Green st., Woodbridge (12)
Belfer, Jacob J., 1235 Chambers st., Trenton (11)
Belford, Ralph J., 90 Nassau st., Princeton (11)
Beling, C. Abbott, 15 Washington st., Newark (7)
Bell, Horace O., Es. Co. Isola. Hosp., Belleville (7)
Bellak, Ellis R., Leesburg (6)
Belle, Louis, 948 Madison av., Elizabeth (20)
Bellis, Horace D., 437 E. State st., Trenton (11)
Bellucci, Frank D., 300 Mt. Prospect av., Newark(7)
Belott, August V., 129 Main st., West Orange (7)
Belott, Louis V., 529 Park av., Orange (7)
Ben-Asher, Solomon, 61 Gifford av., Jersey City (9)
Bender, Dorothea A., 61 DeHart pl., Elizabeth (20)
Bender, Louis, 285 Ridgewood av., Newark (7)
Bender, Theodore, 666 Broadway, Paterson (16)
Bengelsdorf, Aron, 29 Clinton pl., Newark (7)
Benjamin, Harold C., 59 Crescent av., Jersey City(9)
Benjamin, Joseph F., 203 Godwin av., Ridgew'd(16)
Bennett, Robert E., N. J. State Hosp., Trenton (11)
Bensel, Arlington, Jr., 145 Harv'd st.,Newt'nv'e,M.(7)
Bensley, Maynard G., 129 Summit av., Summit (20)
Benz, Francis J., 30 Lum av., Chatham (14)
Benz, George L., 251 S. Tenth st., Newark (7)
Berardinelli, Carmine G., 92 Eighth av., Newark(7)
Berenson, Samuel J., 1012 E. Jersey st., Elizab'th(20)
Beres, Albert J., 189-A Valley Blvd., Wood-Ridge(2)
Berg, Samuel, 156 Roseville av., Newark (7)
Bergen, Marshall, 100 Bentley av., Jersey City (9)
Berger, Harold R., 250 Elizabeth av., Elizabeth (20)
Berger, William A., 346 Roseville av., Newark (7)
Bergman, Meyer W., 31 Lincoln Park, Newark (7)
Bergmann, Ewald H., 44 Bank st., Sussex (19)
Bergmeyer, Josef T., 6500 Palisade av., W. N. Y.(9)
Bergsma, Daniel, State Health Dept., Trenton (11)
Berk, M. David, 505 Wanaque av., Pompton L. (16)
Berke, Raynold N., 430 Union st., Hackensack (2)
Berkhout, Peter G., 106 Haledon av., Prospect P.(16)
Berkow, Abraham, 417 Main st., Hackensack (2)
Berkow, Bori, 245 State st., Perth Amboy (12)
Berkow, Samuel G., 280 Hobart st., Perth Amboy(12)
Berkowitz, Benjamin, 188 E. Commerce st.,Br't'n(6)
Berlin, Joseph I., 2600 Boulevard, Jersey City (9)
Berlin, Morris R., 84 Girard pl., Newark (7)
Berman, H. Robert, 299 Clinton av., Newark (7)
Berman, Jacob J., 409 Market st., Trenton (11)
Berman, Leonard M., 382 Springfield av.,Summit(20)
Berman, Sol, 351 Rahway av., Elizabeth (20)
Bernell, Stanley P., 1207 Haddon av., Camden (4)
Berner, Benjamin, 465 Park av., Paterson (16)
Berney, Irving, 31 Lincoln Park, Newark (7)
Berney, Ruth V., 16 Lyons av., Newark (7)
Bernhard, William G., 79 Minninsink rd., Short H.(7)
Bernheisel, Louis E., Marshallville rd., Tuckahoe(5)
Bernson, Samuel T., 33 Bartholf av., Pompton L.(16)
Bernstein, Arthur, 89 Lincoln Park, Newark (7)
Bernstein, Bertram, 35 Boudinot st., Trenton (11)
Bernstein, Julius, 584 S. Tenth st., Newark (7)
Berry, C. Hartley, 129 Summit av., Summit (20)
Berry, Leonard M., 205 Nassau st., Princeton (11)
Bertha, Nicholas A., 83 S. Main st., Wharton (14)
Bertland, Alexander D., Belvidere av.,Wash'gt'n(21)
Beshlian, Hagop K., 7 Lee pl., Paterson (16)
Besson, Franklin J., 999 Clinton av., Irvington (7)
Betancourt, Raul R., 406 Cooper st., Camden (4)
Bew, David F., 7500 Ventnor av., Margate City (1)
Bew, Richard C., 1217 Pacific av., Atlantic City (1)
Bianchi, Angelo R., 184 Hunterdon st., Newark (7)
Bianco, John J., 523 Cooper st., Camden (4)
Biber, David, 900 Stuyvesant av., Union (20)
Bibighaus, Warren Y., 313 4th av., Haddon Hts. (4)
Biczak, Arkad K., 311 Lexington av., Clifton (16)
Bieber, Harold B., 115 Fairview av., Jersey City (9)
Bigliani, Urban R., 7308 Boulevard, N. Bergen (9)
Binder, Charles I., 833 South 13th st., Newark (7)
Binder, Joseph, 101 Third av., Long Branch (13)
Bird, Frank L., Main st., Netcong (14)
Bird, Ivan F., 565 Emmett av., Trenton (11)
Birdsall, Clarence A., 9 Smull av., Caldwell (7)
Birrell, Russell G., 56 Church st., Toronto 1,Can.(20)
Bissett, John V., 29 Hawthorne av., East Orange(7)
Black, Max S., 1320 St. George av., Linden (20)
Blackburne, George, 490 Central av., Newark (7)
Blackwell, Enoch, 28 W. State st., Trenton (11)
Blaisdell, C. Byron, 489 Broadway, L. Branch (13)
Blake, Albert J., 640 Broadway, Paterson (16)
Blake, Dexter B., R. F. D. 1, Far Hills (14)
Blakey, Abram P., 144 Wegman Pkwy., Jer. City (9)
Blanchard, Kenneth, 144 Harrison st., E. Orange (7)
Blasi, Benjamin, 150 Hunterdon st., Newark (7)
Blasi, Clifford, 26 Longfellow av., Newark (7)
Blatt, David, 737 Jefferson av., Elizabeth (20)
Blaugrund, Samuel, 833 W. State st., Trenton (11)
Blauvelt-Wells, Grace B., 76 Heights rd.,Ridgew'd(2)
Blecher, Irving E., Veterans Admin., Lyons (18)
Bleiberg, Jacob, 31 Lincoln Park, Newark (7)
Blenkle, Victor A., 140 Chadwick rd., Teaneck (2)
Bloch, Harry, 613 N. Broad st., Elizabeth (20)
Block, Charles, 368 Clinton av., Newark (7)
Block, Marcus T., 177 Bloomfield av., Newark (7)
Block, Max, 48 N. Fullerton av., Montclair (7)
Block, Milton, 320 Union av., Irvington (7)
Bloom, G. Homer, 674 Hillcrest Blvd., Phillipsb'g(21)
Blumberg, A. William, New Egypt (15)
Blumberg, Jack, 504 Westminster av., Elizabeth(20)
Blythe, Rowland P., 30 Springf'd av., Cranford (20)
Bobadilla, Juan E. B., 293 S. Main st., Wharton (14)
Bocchini, Joseph A., 366 S. 12th st., Newark (7)
Boehm, Herbert, 804 E. Jersey st., Elizabeth (20)
Bogacz, John, 3288 Boulevard, Jersey City (9)
Bohl, Louis J., 320 Broadway, Paterson (16)
Bokor, Emery, 819 S. 12th st., Newark (7)
Bolanowski, Kasimier J., 145 Marsh'l st.,Eliz'b'h(20)
Bolten, Bernard, 377 Osborne ter., Newark (7)
Bomar, Wirrion L., 310 Plainfield av., Plainfield (20)
Bonanno, Peter J., 226 Engle st., Englewood (2)
Bongiorno, Henry D., 516 River st., Paterson (16)
Bonnet, W. Laurence,2791 Not'gh'm wy.,M'rc'rv'e(11)
Bono, Joseph J., 631 Anderson av., Cliffside Pk. (2)
Bonomo, Michael J., 587 S. 10th st., Newark (7)
Bookrajian, Edward N., 8027 Boulevard,N.Bergen(9)
Bookstaver, Barnet S., 241 Cedar lane, Teaneck (2)
Booth, George R., 219 Highland av., Westville (8)
Booth, Herbert W., 4th & Jersey avs., Spring L.(13)
Booth, Walter S., 744 Rahway av., Elizabeth (20)
Booth, William K., 304 William st., Boonton (14)
Boquist, Walter A., 380 Hudson st., Phillipsb'g(21)
Borak, Peter, Merck & Co., Rahway (20)
Borchek, Arthur R., 7523 Broadway, N. Bergen (9)
Borino, John W., Jr., 15 Wash'gton av., Newark (7)
Borkow, Philip, 45 E. Blackwell st., Dover (14)
Bornstein, David, 566 Broadway, Paterson (16)
Bornstein, Paul K., 601 Grand av., Asbury Pk. (13)
Borow, Benjamin, 507 Church st., Bd. Brook (18)
Borow, Henry, 507 Church st., Bound Brook (18)
Borow, Louis S., 507 Church st., Bound Brook (18)
Borow, Maurice, 524 Church st., Bound Brook (18)
Borrella, Dominic D., 476 Hamilton av., Trenton (11)
Borrone, Milton G., 2624 Boulevard, Jersey City (9)
Borrus, Joseph C., 105 Carroll pl., N. Brunsw'k (12)
Borshaw, Hyman, 108 Bentley av., Jersey City (9)
Borsher, Irving P., 306 Ridge st., Newark (7)
Bortone, Frank, 2765 Boulevard, Jersey City (9)

Bosch, Taeke, 290 E. Franklin Tpk., Hohokus (2)
Boselli, Emile H., 614 15th st., Union City (9)
Bossard, Harry B., R. D. 2, Phillipsburg (21)
Bossone, Joseph E., 362 Bath av., Long Branch (13)
Bostwick, Delazon S., Cumberland Htl.,Bridget'n(6)
Bostwick, Wallace R., Main st., Blairstown (21)
Botbyl, Burt W., 927 Madison av., Paterson (16)
Botti, John A., 157 Wegman Pkwy., Jersey City (9)
Boudwin, Norman K., 64 Church st., Beverly (3)
Bourns, Edward G., 203 S. Euclid av., Westfield(20)
Bove, Joseph, 306 Lincoln av., Orange (7)
Bowen, Robert N., 419 Cooper st., Camden (4)
Bowers, F. Clyde, Mountain av., Mendham (14)
Bowersox, Clarence A., 509 N. Broad st.,W'dbury(8)
Bowman, Ned O., 1001 Georges rd., N. Brunsw'k(12)
Boyd, John B., 31 Oakland st., Red Bank (13)
Boyd, Robert P., 210 Martine av., S., Fanwood (20)
Boyd, William B., Jr., N. J. Zinc Co., Franklin (19)
Boyer, Charles G., Annandale (10)
Boyer, Paul K., 129 Summit av., Summit (20)
Boyer, Philip A., Jr., Roosevelt Hosp., Metuchen(12)
Boyers, Sidney S., 413 60th st., West New York (9)
Boyes, James G., 1326 Chetwynd av., Plainfield (20)
Boylan, Matthew E., 66 Van Reipen av., Jer. City(9)
Boyle, Francis L., 805 Boulevard, Bayonne (9)
Boysen, Otto T., 2704 Westfield av., Camden (4)
Bozzi, Robert, 406 Roseville av., Newark (7)
Brackett, Elizabeth R., 371 Franklin av., Nutley (7)
Bradasch, George A., 1415 Central av., Union C. (9)
Bradford, Stella S., 26 N. Mountain av., Montcl'r(7)
Bradley, Muriel, 126 Lorraine av., Up. Montclair (7)
Bradley, Robert A., 1616 Pacific av., Atlantic City(1)
Brady, Frank J., 1038 S. Orange av., Newark (7)
Brady, Raymond J., 777 Clinton av., Newark (7)
Brady, Thomas S., 678 Avenue C, Bayonne (9)
Braitman, Max, 412 60th st., West New York (9)
Brakeley, Elizabeth, 71 Myrtle av., Montclair (7)
Bramble, Halsey S., Front & Ch'tn't sts., Elmer (17)
Brams, William M., 7 Madison av., Newark (7)
Brancone, Alphonse M., 417 21st av., Paterson (16)
Brandchaft, Bernard, 658 Springfield av., Newark(7)
Brandman, Otto, 190 Clinton av., Newark (7)
Branin, Howard S., 200 W. Main st., Millville (6)
Brasefield, Edgar N., 218 Chamb'rs st.,Phillipsb'g(21)
Brauer, Charles, 2219 Boulevard, Jersey City (9)
Brauer, Selig L., 2012 Boulevard, Jersey City (9)
Braun, Gustav A., 101 N. Grove st., East Orange (7)
Braun, Joseph C., 531 Broad av., Palisades Pk. (2)
Braun, William, 406 Cooper st., Camden (4)
Braunstein, Sigmund C., 424 57th st., W. N. Y. (9)
Braunstein, William P., 1 Bellevue st.,Weeh'wk'n(9)
Braunwarth, Robert J., 555 S. Broad st.,Elizab'th(20)
Brawer, Jerome, 425 Park av., Paterson (16)
Breen, James E., 418 Chestnut st., Union (20)
Bregman, Alexander, 2 Dempsey av., Edgewater (2)
Bregman, Milton, 81 Union av., Manasquan (13)
Breitstadt, Charles A., 157 Elwood av., Newark (7)
Breme, Julius C., 523 Walnut av., Laurel Springs(4)
Bremer, Kenneth M., 85 S. Harrison st., E.Orange(7)
Brennan, Charles L. S., 14 S. Broadway, Glouc'st'r(4)
Brennan, John P., 14 Church rd., Merchantville (4)
Brennan, Ralph J., 301 Plaza rd., Fair Lawn (2)
Brescia, James, 7 E. Franklin Tpk., Waldwick (2)
Bresev, Morris, 42 Broadman Parkway, Jer. City (9)
Breslow, Alexander E., 930 Pierpont st., Rahway(20)
Breslow, Samuel, 157 Market st., Perth Amboy (12)
Brethwaite, Samuel H., Jr., 129 Summit av.,S'm't(20)
Breuder, Andrew B., Whippany rd., Whippany (14)
Brewer, Catherine H., 808 Ocean av., Jersey City (9)
Brewer, David R., Jr., 112 N. Broad st.,Woodbury(8)
Brezinski, Edward J., 308 Wash'gt'n st.,P.Amboy(12)
Brick, George J., 43 Cottage st., Jersey City (9)
Briggs, Henry, 144 Harrison st., East Orange (7)
Brim, Anne J. S., Edgemere Hotel, E. Orange (7)
Brindle, Harry R., 501 Grand av., Asbury Park (13)
Bristol, Frank E., II, Main st., Dayton (12)
Brittain, Elmore G., 15 W. Bridge st., Bound Br'k(18)
Brizard, Joseph L., 81 High st., Belleville (7)
Broadnax, Mary E., 176 Eagle Rock Wy.,M'tcl'r(7)
Brock, Howard F., 417 W. Broad st., Westfield (20)
Brodkin, Eva T., 365 Osborne ter., Newark (7)
Brodkin, Henry A., 365 Osborne ter., Newark (7)
Brody, Morton S., 67 Paterson st., N. Brunsw'k(12)
Brogan, Francis B., 600 Broadway, Paterson (16)
Brokaw, Christopher A., 615 N. Broad st.,Eliz'b'h(20)
Bromberg, Charles B., 107 Lexington av.,Passaic(16)
Bromberg, Jules H., 89 Lincoln Park, Newark (7)
Bronner, Alfred, 47 Burgess pl., Passaic (16)
Brooks, George M., 18 N. Main st., Cape May Ct.H.(5)
Brooks, Sidney S., 380 12th av., Paterson (16)
Brotman, Harry, 808 S. 11th st., Newark (7)
Brotman, Morton M., 90 Avon av., Newark (7)
Brower, Francis M., III, 62 E. Center st.,Woodb'y(8)
Brown, Chester R., 22 Midland av., Arlington (7)
Brown, Chester T., 102 N. Sixth av., Highland P.(12)
Brown, Edith L., 340 Garfield av., Avon (13)
Brown, Edward V., 9 Park av., Caldwell (7)
Brown, Francis J., 326 Richmond av.,Pt.Pleasant(15)
Brown, Francis S., 2216 Shore rd., Northfield (1)
Brown, Frank H., Jr., 327 Chestnut st., RoselleP.(20)
Brown, Harold W., 27 S. Fullerton av., Montclair (7)
Brown, J. Carlisle, 1616 Pacific av., Atlantic City(1)
Brown, John L., 1019 Cumbermede rd., Palisade (2)
Brown, Kenneth G., 501 Grand av., Asbury Park(13)
Brown, L. Greeley, 173 Madison av., Elizabeth (20)
Brown, Lewis W., 160 Roseville av., Newark (7)
Brown, Marcus, 2 Wt. Horse Pk., Haddon Hts. (4)
Brown, Milton B., 72 Roosevelt av., Carteret (12)
Brown, Robert C., 318 N. Second st., Millville (6)
Brown, Stanley L., 517 Cooper st., Camden (4)
Brown, William H., 501 First av., Elizabeth (20)
Browne, George F., 126 Lorraine av., U. Montcl'r(7)
Browning, Wm., J., 134 N. Centre st., Merchantv'e(4)
Brozdowski, John J., 562½ Jersey av., Jer. City (9)
Bruning, Richard H., 372 Wyoming av.,Maplew'd(7)
Brunkow, Charles D., 31 Lincoln Park, Newark (7)
Brunner, Hans, 670 Clinton av., Newark (7)
Bruno, Anthony, 1092 Elizabeth av., Elizabeth (20)
Bruzza, George, 415 Washington Blvd., Sea Girt (13)
Buchanan, Ralph M. L., 8 Market st., Phillipsb'g(21)
Buchanan, Robert W., 129 Summit av., Summit (20)
Buckley, Jeremiah L., 666 Franklin av., Nutley (7)
Buckley, Paul J., 159 Palisade av., Bogota (2)
Buckley, Richard F., 1122 Garden st., Hoboken (9)
Buckley, Richard T., Jr., 111 E. Main st.,Maple S.(3)
Buckner, Roscoe W. H., 20 Rose st., Newark (7)
Budd, J. Reuben, 230 Lexington av., Passaic (16)
Buermann, August, III, Army (7)
Buermann, Robert, 206 Madison av., Lakewood (15)
Buffey, Walter H., McGuire G. Hosp.,Richm'd,V.(20)
Bull, Louis M., 92 Heller Parkway, Newark (7)
Bull, William J., 98 Park st., Montclair (7)
Bullen, Victor E., 148 Hamilton av., Paterson (16)
Bump, Samuel C., 505 E. Ridgew'd av.,Ridgew'd(2)
Bunnell, Frederick N., 22 S. Main st., Barnegat (15)
Burbidge, J. Raymond, 10 Bayard lane, Princet'n(11)
Burch, Reynold E., 102 S. 14th st., Newark (7)
Burke, Leonard P., 76 Lakeside av., Verona (7)
Burke, Stephen E., 212 First av., Newark (7)
Burkett, J. Paul, 215 Delaware st., Woodbury (8)
Burkett, Wendell J., 16 W. Holly av., Pitman (8)
Burkhead, Howard C., 541 Broadway, L. Branch(13)
Burn, Victor E., 27 Trinity st., Newton (19)
Burne, John J., 17 Gould av., Newark (7)
Burnett, Charles B., 109 Main st., South River (12)
Burnham, Lyman, 229 Engle st., Englewood (2)
Burns, Geoffrey C. H., County rd., Demarest (2)
Burns, Joseph R., 254 S. Olden av., Trenton (11)
Burns, Wilmer F., 267 White Horse Pk., Audubon(4)
Burokus, William, 21 E. Pleasant av., Maywood (2)

Burpeau, William P., 80 Woodland av., E. Orange(7)
Burrill, Benjamin B., Jr., 83 Park st., Montclair(7)
Burritt, Norman W., 30 Beechwood rd., Summit(20)
Burroughs, Charles W., 32 Palmer lane, Trenton(11)
Burroughs, Edmund W., 701 W. State st.,Trent'n(11)
Burstein, Frank, 1115 S. Broad st., Newark (7)
Burstein, Leo Q., 115 Jefferson av., Elizabeth (7)
Burstein, Rachel, 31 Lincoln Park, Newark (7)
Busansky, Samuel T., Trenton rd., Browns Mills(3)
Busch, Herman, 38 Johnson av., Newark (7)
Bush, Archer C., 40 Union st., Montclair (7)
Bush, Ralph K., 23 E. Maple av., Merchantville (4)
Busicco, Philip S., 131 Liberty rd., Englewood (2)
Butan, Louis, 479 Highland av., Orange (7)
Butcher, Charles, Heislerville (6)
Butenas, Joseph J., 300 First av., Elizabeth (20)
Butler, Samuel S., 1100 Kaighn av., Camden (4)
Butler, Vincent P., 33 Bentley av., Jersey City (9)
Butterfield, Arey A., 655 Main av., Passaic (16)
Buvinger, Charles W., 50 Washington st., E. Or.(7)
Byck, Louis, 794 S. 11th st., Newark (7)
Byer, M. Yale, 442 Greenwood av., Trenton (11)
Byrne, J. Arthur, 16 Elm st., Morristown (14)
Byrnes, Elizabeth W., 55 S. Maple av., E. Orange(7)
Bythewood, Alton E., Jr., 145 W. Mark't st.,New'k(7)

ASSOCIATE MEMBERS

Barnett, Robert W., 601 Grand av., Asbury Park (13)
Benko, George, 266 High st., Perth Amboy (12)
Betlejeski, Z. John, 93 Howe av., Passaic (16)
Bielski, Johannes F.,180 Somerset st.,N. Br'nsw'k(12)
Blackman, Sadie, 12 Roosevelt av., Westwood (2)
Bombardieri, Anthony, 251 Centre st., Nutley (7)
Boogdanian, Victor H., 316 George st.,N.Br'nsw'k(12)
Born, Joseph, 457 E. 28th st., Paterson (16)
Bosch, Donald T., 244 Woodside av., Ridgewood (7)
Bowen, John R., Jr., 206 E. Verona av., Pleas'tv'e(1)
Brenna, Joseph D., 448 Hamilton av., Trenton (11)
Brinning, Elbert C., Jr., 442 Wash'gt'n av.,M'tcl'r(7)
Brunhofer, Andrew, 714 Cedar lane, Teaneck (2)
Buckner, Louise P., 93 Howe av., Passaic (16)
Budnicki, Xavier B., 105 Broad st., Perth Amboy(12)
Buford, Charles C., Jr., 507 S.Warren st.,Trent'n(11)
Burchell, Frank H., 108 Preakness av., Paterson(16)
Burell, Vincent A., 108 Darwin av., Rutherford (11)

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ACTIVE MEMBERS

Cacciarelli, Robert A., 517 Roseville av., Newark(7)
Cagan, Maclyn, 60 Ridge rd., North Arlington (7)
Caggiano, Anthony P., 137 Grove st., Montclair (7)
Caggiano, John D., 140 W. Main st., Penns Gr.(17)
Cahill, Laurence A., 361 Lafayette st., Newark (7)
Calabrese, D. John, 114 Rochelle av., Rochelle P.(2)
Calabrese, Dino, 1022 Anderson av., Palisade (2)
Calasibetta, Charles J., 37 Longfellow av., New'k(7)
Caldwell, Donald M., 219 N. Arlington av., E. Or. (7)
Caldwell, George W., 81 E. Clinton av., Tenafly (2)
Caldwell, Julius A., 45 S. Mountain av., Montclair(7)
Caleca, Jack J., Andover (19)
Callahan, Edward J., 124 St. Paul st., Westfield (20)
Calligaro, Egildo A., 288 Parker av., Clifton (16)
Calvert, William C., 225 Gregory av., W. Orange (7)
Calvin, Charles H., 80 Commerce st., P. Amboy(12)
Camarda, Joseph, P. O. Box 215, Lakehurst (15)
Camche, Leo J., 250 Renner av., Newark (7)
Cameron, Arthur E., 59 Somerset st., Newark (7)
Cameron, C. Paul, 720 Shore rd., Somers Point (5)
Campana, Vincent R., 386 Fairmount av.,Jer.City(9)
Campbell, Charles P., 397 Prospect av., Hackens k(2)
Campbell, Everette L., 144 Harrison st., E.Orange(7)
Campbell, James M., 101 S. Central av., Ramsey (2)
Campbell, William, 144 Harrison st., E. Orange (7)
Campo, A. Guy, 401 Broadway, Westville (8)
Campo, Salvatore T., 401 Broadway, Westville (8)
Candio, Vincent P., 366 Ridge rd., Lyndhurst (2)
Cangemi, Vito F., 50 Glenwood av., Jersey City (9)
Cannata, Benjamin, 113 Market st., P. Amboy(12)
Cannis, John P., 1019 Park av., Plainfield (20)
Cannon, Edward A , 7512 Boulevard, N. Bergen (9)
Canright, Cyril M., 34 Springfield av., Cranford (20)
Cantalupo, Emidio, 95 Nichols st., Newark (7)
Cantelmo, Alphonse L., 144 Harrison st., E. Or. (7)
Cantini, Raphael S., 727 Watchung av., Plainf'd(20)
Capell, Harry H., 302 Broadway, Paterson (16)
Capio, Mario D., 293 Broadway, Paterson (16)
Cappiello, William, 352 Seventh av., Newark (7)
Captanian, Aram A., 166 Main st., Matawan (13)
Caputo, Anthony R., 301 Washington av.,Bellev'le(7)
Carabelli, A. Albert, 306 Hamilton av., Trenton(11)
Carbone, Francesco N., 440 Central av., Orange(7)
Carbone, Ralph, 2431 Lemoine av., Coytesville (2)
Card, Charles F., 144 W. Milton av., Rahway (20)
Cardinale, Pasquale F., 1405 North av., Elizabeth(20)
Cardwell, Edgar P., 965 Broad st., Newark (7)
Caridi, Salvatore, 431 59th st., West New York (9)
Carlander, Oswald R., 130 N. Broadway, Camden (4)
Carleton, Charles K., 266 S. Main st., Wharton (14)
Carlin, Edward J. M., 1423 Irving st., Rahway (20)
Carlisle, J. Mallory, 550 Hillcrest av., Westfield (20)
Carlisle, John H., 129 Prospect st., Passaic (16)
Carlisle, Paul E., 763 Broad st., Newark (7)
Carll, Jesse W., 129 Broad st., Bridgeton (6)
Carlough, David J,, 426 Ellison st., Paterson (16)
Carmona, L. Roberto, 141 Wood st., Tuckerton (15)
Carney, John W., 616 Jersey av., Jersey City (9)
Carpenter, Cedric C., 97 Hobart av., Summit (20)
Carr, Josephus C., 75 13th av., Newark (7)
Carr, Mary B., 1 Astor pl., Jersey City (9)
Carrigan, Francis P., 305 Roseville av., Newark (7)
Carrol, Wilfred, 51 Ingraham pl., Newark (7)
Carroll, Bruce J., 469 W. Front st., Plainfield (20)
Carroll, C. Walter, 125 Centre st., Trenton (11)
Carroll, Thomas R., 754 Anderson av., Grantwood(2)
Carroll, William V., 211 Academy st., Trenton (11)
Carsley, Sidney H., 19 Holly st., Cranford (20)
Carter, Joseph F. S., 142 Atkins av., Asbury Pk.(13)
Cartisser, Joseph J., Stanhope (19)
Cartnick, Louis C., 228 Hillcrest av., Wood-Ridge(2)
Carusi, Leonardo G., 337 Park av., Paterson (16)
Caruso, Paul F., 194 Montross av., Rutherford (2)
Casagrande, Stephen R., 56 River rd., Rumson (13)
Casciano, Adolph D., 189 Harrison av., Jersey C.(9)
Case, Clarence E., Jr., 15 W. Bridge st., Som'rv'e(18)
Casey, Robert B., 51 W. Milton av., Rahway (20)
Casilli, Arturo R., 618 Newark av., Elizabeth (20)
Casselman, Arthur J., 301 N. Second st., Camden (4)
Cassini, Henry C., 27 Tremont av., East Orange (7)
Castaldo, Nell, 103 Lincoln av., E., Cranford (20)
Castellano, Martin G., 330 Roseville av., Newark(7)

Catania, Joseph P., 140 Passaic st., Garfield (2)
Catanzaro, Francesco, 151 Jefferson st., Passaic(16)
Catanzaro, Vincent J., 316 Midland av., Garfield (2)
Catapano, John, 21 Hazelton st., Ridgefield Pk. (2)
Catlaw, J. Kenneth, 321 Stegman Pkwy., Jer. City(9)
Catlett, George F., Newton (19)
Cavalli, Ralph D., N. Y. Ship Corp., Camden (4)
Cella, Charles F., 359 Hamilton av., Trenton (11)
Cerchio, Michael, 281 Newark av., Jersey City (9)
Cerone, Daniel M., 295 Roseville av., Newark (7)
Cestone, Canio, 1425 Pompton av., Little Falls (7)
Cetrulo, Gerald I., 234 Mt. Prospect av., Newark (7)
Cetta, Peter, 109 Mountainside av., Nutley (9)
Chaiken, Louis H., P. O. Box 51, Elizabeth (20)
Chalfant, William P., Br'dw'y & Craft'n av.,Pitm'n(8)
Chamberlain, Richard R., 30 Lenox pl., Maplew'd(7)
Chandler, Swithin, Jr., 4273 S. Broad st.,Yardv'e(11)
Chapman, Ellis J., 203 Danforth av., Jersey City(9)
Chapman, Otis P., 400 Westminster av.,Elizab'h(20)
Chapman, Walter I., 700 Avenue C, Bayonne (9)
Chapnick, Maurice M., 715 Broadway, Paterson(16)
Charleroy, Durant K., 935 Greenw'd av., Trenton(11)
Charlton, C. Coulter, 1616 Pacific av., AtlanticCity(1)
Charney, William, 546 Broadway, Paterson (16)
Chase, Anthony V., 220 S. Main st., Manville (18)
Chase, Kalman, Jr., 80 Sheridan av., Hohokus (2)
Chayes, Sydney, 980 Avenue C, Bayonne (9)
Cherashore, Harry N., 363 Centre st., Nutley (7)
Chernus, Jack, 61 Lincoln Park, Newark (7)
Cherry, Homer H., Val. View Sana., Paterson (16)
Cheskin, Louis J., 31 Lincoln Park, Newark (7)
Chesler, Maurice, 124 W. Broadway, Salem (17)
Chesley, Norman K., 585 Nassau av., Paulsboro (8)
Chesner, William A., 1111 Hamilton av., Trenton(11)
Chesnick, Reuben B., 290 W. Clinton av., Oaklyn (4)
Chester, Saul W., 634 Broadway, Paterson (16)
Chianese, C. Chester, 464 Hamilton av., Trenton(11)
Chiaramida, Joseph, Essex Co. Sana., Verona (7)
Chieffo, Henry, 387 Hoboken av., Jersey City (9)
Chiger, Alexander S., 621 High st., Newark (7)
Childers, Robert J., 604 Park av., Plainfield (20)
Chilton, Forrest S., Pompton Tnpk.,Pompton P.(16)
Chimacoff, Hyman, 159 Elizabeth av., Newark (7)
Chizik, John J., 162 W. 31st st., Bayonne (9)
Chmelnik, Abraham G., City Hospital, Newark (7)
Chodosh, Maurice A., 606 Roosevelt av., Carteret(20)
Chrisman, Irving, 423 Broadway, Paterson (16)
Christensen, Alexander H.. Lebanon (10)
Christian, Elizabeth I., Station A, Trenton (11)
Christian, Henry A., 263 Woodlawn av., Jer. City (9)
Christoph, Francis T., 959 Salem rd., Union (7)
Chudzik, Edward W., 269 Outwater lane, Garf'd(16)
Church, Charles F., 192 College av., N. Brunsw'k(12)
Churg, Jacob, Barnert Mem. Hosp., Paterson (16)
Ciampa, Ralph P. E., 119 Morris av., L. Branch (13)
Ciccone, Edwin L., 261 Roseville av., Newark (7)
Ciccone, Roy, 57 Passaic av., Passaic (16)
Cichon, Elmer J., 679 Van Houten av., Clifton (16)
Cierl, Daniel S., 1515 Central av., Union City (9)
Cincotti, Victor, 11 Hill st., Newark (7)
Citrino, Robert J., 345 Centre st., Nutley (7)
Clarie, D'Arcy C., 558 Broad av., Ridgefield (2)
Clark, Alice L., 206 W. State st., Trenton (11)
Clark, Ernest W., 414 Cooper st., Camden (4)
Clark, Frank G., White House Station (10)
Clark, John C., 501 Grand av., Asbury Park (13)
Clark, Margaret A., Glen rd., Woodcliff Lake (2)
Clark, Morris B., W. Pine & Atl. avs., Audubon (4)
Clark, Orlo H., 149 Prospect st., Passaic (16)
Clark, S. Worth, 152 S. No. Carolina av., Atl. C. (1)
Clarke, Francis M., 116 New st., N. Brunsw'k (12)
Clarken, Joseph A., 27 Ingraham pl., Newark (7)
Cleary, Joseph P., Minotola (1)
Clement, Baxter L., 15 Washington st., Newark (7)
Clement, John B., 178 W. State st., Trenton (11)
Clinton, James, 196 Sixth st., Bridgeport, Conn. (12)
Clinton, Joseph A., 339 Park av., Newark (7)
Close, Byron H., Hamburg Tnpk.,Bloomingdale (16)
Cloud, Albert W., 139 Hugenot av., Englewood (2)
Clunan, Ambrose P., 851 Hamilton av., Trenton (11)
Cockburn, Wilfred P., 48 East Kinney st.,Newark(7)
Coe, Edward M., 217 Holly st., Cranford (20)
Coes, Harold V., Jr., 64 Elston rd., Up. Montcl'r (7)
Coffin, Henry F., 116 N. Ninth st., Newark (7)
Cogan, Henry, 117 Beverly Ct., Daytona B., Fla.(16)
Cohan, Charles C., 217 W. Hanover st., Trenton (11)
Cohan, Joseph, 217 W. Hanover st., Trenton (11)
Cohen, Harry X., 1267 Stuyvesant av., Union (20)
Cohen, Herman, 489 Jersey av., Jersey City (9)
Cohen, Herman, 1301 Hamilton av., Trenton (11)
Cohen, I. Elvin, 561 Elizabeth av., Newark (7)
Cohen, Julian, 592 E. 29th st., Paterson (16)
Cohen, Leon, 2424 Baird Blvd., Camden (4)
Cohen, Louis, 257 Paulison av., Passaic (16)
Cohen, M. Marvin, 582 E. 25th st., Paterson (16)
Cohen, Maurice, 106 Valley rd., Montclair (7)
Cohen, Maurice B., 224 E. Wildwood av., Wildw'd(5)
Cohen, Oscar, H., 115 Church st., Boonton (14)
Cohen, Paul, 500 State st., Camden (4)
Cohen, Samuel, 100 Clifton pl., Jersey City (9)
Cohen, Samuel A., 980 Summit av., Jersey City (9)
Cohen, Sidney L., 29 Girard pl., Newark (7)
Cohen, Sidney P., 509 Franklin av., Nutley (7)
Cohen, William, 1007 Greenwood av., Trenton (11)
Cohn, George M., 867 S. 11th st., Newark (7)
Cohn, Hermann, 393 Clinton av., Newark (7)
Cohn, Royal M., 740 Clinton av., Newark (7)
Colavita, James J., 433 Princeton av., Trenton (11)
Colby, Maxwell X., 133 Chelsea av., L. Branch (13)
Cole, L. Frank, 388 Terhune av., Passaic (16)
Cole, Nathaniel B., 104 Market st., P. Amboy (12)
Cole, Walter H., Jr., 1060 E. Jersey st., Elizabeth(20)
Coleman, Austin H., Clinton (10)
Coleman, Joseph G., Hamburg (19)
Coleman, Russell M., 76 N. Clinton st., E. Orange(7)
Colley, Arthur T., 916 Park av., Plainfield (20)
Collier, Martin H., 406 Cooper st., Camden (4)
Collins, John F., 1208 Columbia av., Pleasantv'e(1)
Collins, Laurence M., N. J. State Hosp., Grey.P.(14)
Collins, Louis K., 54 State st., Glassboro (8)
Collis, Abraham S., 156 Atlantic av., L. Branch (13)
Colmer, Meyer J., 31 Lincoln Park, Newark (7)
Colsh, LeRoy L., 612 Ridgewood rd., Maplewood(7)
Colton, Ethan T., Jr., 31 Park st., Montclair (7)
Comando, Edward N., 695 Clinton av., Newark (7)
Comando, Harry N., 695 Clinton av., Newark (7)
Comeau, George W., 415 Speedw'l av.,Mor's Pl'ns(14)
Comfort, John B., 50 S. Clinton av., Trenton (11)
Commini, Frank F., 439 Bellevue av., Trenton (11)
Comunale, Anthony R., 1709 Irving st., Rahway(20)
Cone, Thomas E., Jr., 108 N. Stanw'th dr.,Pr'c't'n(11)
Conlen, Richard, 523 Haddon av., Camden (4)
Conlon, Philip J., 25 James st., Newark (7)
Connamacher, Harold S., 671 Springf'd av.,New'k(7)
Connell, Emmet J., 2227 Boulevard, Jersey City (9)
Connell, James, 337 Monmouth st., Gloucester (4)
Connolly, John J., 180 Ballantine Pkwy., Newark (7)
Connolly, Richard N., 117 Fifth st., Newark (7)
Connolly, Thomas W., 921 Bergen av., Jersey C.(9)
Connor, Clarence A., 1586 Center av., Fort Lee (2)
Conover, Elizabeth, 129 Summit av., Summit (20)
Conserva, Peter V., 196 Randolph av., Clifton (16)
Constad, Arnold N., 944 Stuyvesant av., Union (20)
Contl, Horace, U.S.P.H.S. (7)
Conty, Anthony J., 318 48th st., Union City (9)
Conway, James V., 428 Elmora av., Elizabeth (20)
Cook, Caroline S., 27 E. Cliff st., Somerville (18)
Cook, Dora G., 317 Cornelia st., Boonton (14)
Cook, Homer E., 27 E. Cliff st., Somerville (18)
Cook, Hugh F., 21 Roseville av., Newark (7)

Cooper, Irving J., 419 George st., N. Brunsw'k (12)
Cooper, Jehu P., Box 74, Matawan (13)
Cooper, Jules, 723 Washington st., Woodbine (5)
Cooper, Ray C., E. Washington av., Wash'gton (21)
Cooper, Robert A., 7137 E. Park av.,Penns'k'nTsp.(4)
Cooperman, Eli L., 527 N. Brunswick av., Fords(12)
Cooperman, William, 647 Market st., Newark (7)
Copleman, Benjamin, 280 Hobart st., P. Amboy (12)
Copleman, Hyman B.,111 Liv'gst'n av.,N.Br'sw'k(12)
Coplin, George J., 528 E. Jersey st., Elizabeth (20)
Corbusier, Harold D., 612 Park av., Plainfield (20)
Cordasco, Peter, 517 Roseville av., Newark (7)
Corio, George A., 307 S. Clinton av., Trenton (11)
Corn, David, 541 Queen Anne rd., Teaneck (2)
Cornish, Charles H., 673 Prospect st., Maplewood(7)
Cornwell, Robert A., 717 Wesley av., Ocean City (5)
Corrigan, Patrick H., 1720 S. Broad st., Trenton(11)
Corson, Filbert R., 101 S. Indiana av., Atl. City (1)
Corson, Kenneth E., 25 S. Myrtle st., Vineland (6)
Cortese, Alvin E., 26 Ward st., Paterson (16)
Cosgrove, Robert A., 186 Belmont av., Jer. City (9)
Cosgrove, Samuel A., 88 Clifton pl., Jersey City(9)
Costa, George J., 567 Jersey av., Jersey City (9)
Costa, Philip L., 88 East Front st., Red Bank (13)
Costabile, Vincent, 324 Second av., Lyndhurst (2)
Costello, William F., 55 W. Blackwell st., Dover(14)
Cosulich, Livio, 210 Littleton av., Newark (7)
Cottone, R. John, 683 Princeton av., Trenton (11)
Cottrell, Judson G., 159 Market st., Perth Amboy(12)
Coughlan, Ella A., 10 Oakwood av., Orange (7)
Coughlin, Frank J., 100 Magnolia av., Arlington(7)
Coughlin, John P., 128 Wegman Pkwy., Jer. City (9)
Coughlin, Joseph J., 396 Union st., Hackensack (2)
Coultas, Aldo B., 1 Madison av., Madison (14)
Covino, Louis L., 44 Oakland ter., Newark (7)
Cowen, Mortimer I., 1330 Oak Tree rd., Iselin (12)
Cowlbeck, H. Donald, 224 W. State st., Trenton (11)
Cox, Harold C., 208 Stockton st., Hightstown (11)
Cox, J. Robert, 37 W. Main st., Penns Grove (17)
Cox, John C., 55 Woodland rd., Maplewood (7)
Cox, William T. R., 345 S. Broad st., Elizabeth (20)
Cox, William W., 79 S. Fullerton av., Montclair (7)
Coxson, Harold P., Laurel rd., Stratford (4)
Crabtree, Loren H., 505 Jersey av., Elizabeth (20)
Cracco, Frederick A., 211 Palisade av., Union City(9)
Craig, Henry A., 315 William st., Somerville (18)
Crandall, John K., 200 Main st., Fort Lee (2)
Crandell, C. Archie, N. J. State Hosp.,Greys'e P.(14)
Crane, Bernard, 306 Pacific av., Atlantic City (1)
Crane, Charles G., 78 Farley av., Newark (7)
Crane, Norman T., 1025 Sleepy Hol. ln., Plainf'd(20)
Crane, Warren E., 974 S. Broad st., Trenton (11)
Crapanzano, Domenico, Essex Co. Hosp.,Cedar G.(7)
Crater, Kenneth E., 24 Jersey st., Bloomfield (7)
Crawford, Georgina U., 65 Prospect st., E. Orange(7)
Crecca, Anthony D., 376 Roseville av., Newark (7)
Crecca, Joseph V., 115 S. Centre st., S. Orange (7)
Crecca, William D., 111 Park av., Newark (7)
Cregar, John S., 440 S. Harrison st., East Orange(7)
Cremens, John F., 144 Carroll st., Paterson (16)
Crescente, Fred J., 836 Madison av., Paterson (16)
Cricco, Carl F., 909 Washington st., Hoboken (9)
Crist, Walter A., 211 N. 5th st., Camden (4)
Cronin, Francis J., 730 South st., Elizabeth (20)
Cropsey, Charles D., 168 Chestnut st., Rutherf'd (2)
Crossfield, Henry C., 144 Harrison st., E. Orange(7)
Crounse, David R., 84 Broadway, Passaic (16)
Crowe, Aldrich C., 735 Atlantic av., Ocean City (5)
Crunden, Allan B., Jr., 21 Plymouth st., Montclair(7)
Cryder, Millard C., 109 Mechanic av.,CapeM.Ct.H.(5)
Crystell, Edward H., 4 Hawthorne av., Nutley (7)
Ctibor, Vladimir F., Califon (10)
Cucinella, Anthony B., 361 Lafayette st., Newark(7)
Cufari, Carmine J., 725 18th st., Union City (9)
Cummins, Ella F., 39 Elm st., Morristown (14)
Cunningham, Charles, Jr., 716 Wood st., Vinel'd (6)
Cunningham, Joel B., 801 Cooper st., Camden (4)
Cuono, Joseph D., Essex Co. Sana., Verona (7)
Cupaiuoli, Richard A., 30 Lenox pl., Maplewood (7)
Curry, Marcus A., N. J. State Hosp., Greyst'e P.(14)
Curtis, A. Maurice, 445 Van Houten st.,Paterson(16)
Curtis, Donald A., 241 Union st., Hackensack (2)
Curtis, Howard C., 224 E. Main st., Moorestown (3)
Cutler, Milton, 554 Bellevue av., Hammonton (1)
Cziraky, Anton, 516 34th st., Union City (9)

ASSOCIATE MEMBERS

Calabrese, Angelo, 210 Littleton av., Newark (7)
Cameron, Joseph H., 720 Shore rd., Somers Point(1)
Canaan, Robert, 12-18 River rd., Fair Lawn (16)
Carman, Henry E., 37 Selvage av., W. Englew'd (2)
Carnrick, Millard, Jr., 14 Freeman st., Roseland (7)
Casser, Leonard, 85 Margie av., Cresskill (2)
Clair, Eli C., Main & Tatum sts., Mantua (8)
Cole, Harold S., 19 Donaldson av., Rutherford (2)
Coleman, William H., 140 Roxboro rd., Trenton (11)
Colfax, Richard S., 33 Bartolf av., Pompton L. (16)
Conner, Herbert A., 268 Bastogne sq., Newark (7)
Cuddihy, Kathleen, 2023 Center av., Fort Lee (2)
Cytowic, Edmund R., 883 Brunswick av.,Trenton(11)

D

ACTIVE MEMBERS

D'Acierno, Pellegrino A., 1708 Palis'e av.,UnionC.(9)
D'Addario, Anthony R., 132 Broadway, Newark (7)
D'Agostin, Henry, 243 Fulton ter., Cliffside Pk. (2)
D'Agostini, Alfred J., 41 Columbia av., Newark (7)
D'Agostini, Robert J., 41 Columbia av., Newark (7)
Dailey, Edward S., 141 Connett pl., S. Orange (7)
Dalberg, Walter, 500 Cherry st., Elizabeth (20)
D'Alessandro, Arthur J., 15 Salem st., Newark (7)
D'Alessandro, Genesio L., Army (7)
Dallio, Salvatore V., 463 Passaic av., Lodi (2)
Dalton, S. Eugene, 101 S. Surrey av., Ventnor (1)
Daly, Edmund J., 921 Bergen av., Jersey City (9)
Daly, John F., 877 Queen Anne rd., Teaneck (2)
D'Amato, Charles R., 324 Hoboken rd.,E.Ruth'rf'd(2)
D'Ambola, Phillip R., 21 S. Sixth st., Harrison (7)
D'Amico, Thomas V., 70 Fairview av., Verona (7)
Dana, Edward, 163 Prospect av., Hackensack (2)
Dandois, George F., 220 E. Wildwood av., Wildw'd(5)
Dane, Charles, 163 Kilburn pl., South Orange (7)
Dane, John, 61 Scotland rd., South Orange (7)
D'Angelo, Joseph C., 334 Washington av., Belley'e(7)
Danielson, John J., 4703 Tonnele av., N. Bergen (9)
Dann, Frederick J., 65 Girard pl., Newark (7)
Dante, Pasquale, 393 Millburn av., Millburn (7)
Dantzig, Henry, 12 S. Franklin st., Lamb'tv'le (10)
Danzis, Louis, 31 Lincoln Park, Newark (7)

Danzis, Maximillian, 31 Lincoln Park, Newark (7)
Darden, Walter T., 149 W. Kinney st., Newark (7)
Darlington, Charles G., 802 Belvidere av., Pl'nf'd(20)
Daron, Simeon, 31 Lincoln Park, Newark (7)
Davenport, Irwin P., 545 W. State st., Trenton (11)
Daversa, Benjamin, 209 Passaic av., Spring L. (13)
David, Leopold S., 326 Cooper st., Camden (4)
Davidson, E. Norwell, 102 East Elm st., Linden (20)
Davidson, Eric W., 290 Park st., Up. Montclair (7)
Davidson, Harold S., 117 S. Illinois av., Atl. City (1)
Davidson, Henry A., R. D. 2, Flemington (10)
Davidson, Maurice M., 128 Grant av.,E.,Roselle P.(7)
Davis, A. Hobson, Paterson Gen. Hosp., Pat'rs'n(16)
Davies, George A., 53 Front st., Elmer (6)
Davies, George W., 35 Fairview av., Verona (7)
Davis, Albert B., 511 Cooper st., Camden (4)
Davis, F. Cleveland, 129 Summit av., Summit (20)
Davis, Harold, 170 S. Wash'gton av., Bergenf'd (2)
Davis, Harold L., 178 W. State st., Trenton (11)
Davis, J. Stannard, 55 Kings Hgwy.,E.,Had'nf'd(4)
Davis, Jacob M., 1400 High st., Burlington (3)
Davis, John E., Jr., 211 Linden st., Riverton (11)
Davis, Louis, 825 S. Tenth st., Newark (7)
Davis, Stanton H., 212 E. Seventh st., Plainfield (20)
Davis, Thomas C., 30 Old Short Hills rd., Millb'n(7)
Davis, William J., 144 Harrison st., East Orange (7)
Davison, C. Spencer, 7 Chestnut st., Salem (17)
Davison, Wilbur S., 13 N. Broadway, Pennsville (17)
Dawson, Harry, 618 E. 24th st., Paterson (16)
Day, Hayward F., 92 Duer st., North Plainfield (18)
Day, Samuel T., Main st., Port Norris (6)
Day, Willis B., 407 E. Seventh st., Plainfield (20)
Dayton, Spencer T., 86 W. Demarest av.,Englew'd(2)
Dean, Guy K., Jr., Princeton rd., Plainsboro (11)
Dear, Abraham L., 23 Synott pl., Newark (7)
DeBell, Peter J., 65 Summer st., Passaic (16)
DeBiaso, Cornelius V., 9 W. Park pl., Rutherford(2)
DeCecio, Thomas, 691 Palisade av., Cliffside Pk. (2)
DeCesare, Ferdinand J., 500 Walnut st.,RoselleP.(20)
Decker, Charles T., 275 Orchard st., Westfield (20)
Decker, Frederick H., Frenchtown (10)
Decker, John G., 143 Terrace av., Hasbr'k Hts. (2)
Dedick, Andrew P., Jr., 118 Branch av.,RedBank(13)
DeDominicis, Frank A., 811 East 22d st.,Pat'rs'n(16)
Deehl, Seymour R., 1026 E. Jersey st., Elizabeth (20)
DeFelice, Mario T., 790 E. Clarke pl., Orange (14)
DeFilippis, Ralph L., 228 Tremont av., Orange (7)
DeFronzo, Morando, 180 Fairmount av., Newark (7)
DeFuccio, Charles P., 12 Duncan av., Jersey City(9)
DeFusco, G. Thomas, 330 Newark av., Jersey City(9)
Degenhardt, Ira H., 114 S. First st., Highland P.(12)
DeGerome, James H., 10 Ridgewood av., G. Ridge (7)
DeGrace, Francis H., 311 Paulison av., Passaic (16)
DeHart, George K., 132 Sunset av., Verona (7)
deHellebranth, Roland T.,104 S.Fr'nkf't av.,V'tn'r(1)
Deibert, Irvin E., 538 Cooper st., Camden (4)
Deich, Samuel R., 170 Passaic av., Passaic (16)
Deichman, Charles H., 39 Elm st., Morristown (14)
Deignan, William L., 257 Dodd st., East Orange (7)
Dein, Harry, 1616 Pacific av., Atlantic City (1)
Deitz, Joseph R., 320 Centre st., Trenton (11)
Delafrange, Kenneth M.,96Wash'gt'n av.,Westw'd(2)
Delario, Anthony J., 316 Broadway, Paterson (16)
Delatusch, George A., 211 Park st., Montclair (7)
Delcau, Jules, 56 W. Main st., Freehold (13)
Del Deo, Nicholas V., 49 State st., Newark (7)
Del Duca, Vincent P., 514 Cooper st., Camden (4)
DeLeonardis, James V., 94 Jefferson st., Newark (7)
Del Guercio, Olindo, 342 Clifton av., Newark (7)
DeLia, Emilio, 25 Crane st., Newark (7)
D'Elia, William J., 1100 Third av., Spring Lake (13)
Della Fera, Lucien F., 206 First av., Newark (7)
Della Penna, Samuel J., 320 Ramapo av.,P'pt'nL.(16)
Della Ragione, Marlo, 120 Second av., Newark (7)
Del Mauro, Alphonse, 460 Park av., Paterson (16)
Del Negro, Albert E., 402 Roseville av., Newark (7)
DeLorenzo, Francis, 281 Bellevue av., Montclair (7)
DeLuca, Louis, 323 E. Ridgewood av., Ridgew'd(2)
DeMarco, Silverino V., 2780 Boulevard, Jer. City (9)
Demaree, Richard H., 310 Norw'd av.,W.L.Br'ch(13)
Demarest, Gerald B., 505 E. Broad st., Westfield(20)
DeMattia, Michael, 71 Ward st., Paterson (16)
DeMichele, Roland V., 516 Clifton av., Newark (7)
Demy, Nicholas G., 912 Prospect av., Plainfield(20)
Denbo, Elic A., 596 Benson st., Camden (4)
Denelsbeck, J. Otis, 878 E. State st., Trenton (11)
Denes, Oscar, 402 Centre st., Nutley (7)
Dengler, Henry P., 260 Morris av., Springfield (20)
Dengrove, Edward, 314 Grassmere av.,Interl'k'n(13)
Denison, Ward C., 316 Broadway, Paterson (16)
Dennison, Alfred D., Jr., 601 Ridgew'd rd.,Map'w'd(7)
DePhillips, Benedict R., 228 Clifton av., Newark(7)
DePietro, Vincent P., 520 48th st., Union City (9)
dePons, Sarah C., 501 Grand av., Asbury Park(13)
DeRosa, Armand, 262 Totowa rd., Totowa (16)
DeRosa, Louis, 193 Danforth av., Jersey City (9)
Dershewitz, Irving, 835 Montgomery st., Jer. City(9)
DeSantis, Orazio J., 131 N. Third st., Millville (6)
DeSanto, Anthony M., 377 Essex st., Hackensack(2)
DeSevo, Gerard E., 108 Fairview av., Jersey City(9)
De Simone, Louis E., 1110 Grand av., Asbury P.(13)
Desmet, Victor F., 324 Broadway, Paterson (16)
Detrano, Salvatore J., 903 Wash'gton st.,Hoboken(9)
DeTroia, Frederick C., 40 12th av., Newark (7)
Deuell, William D., 190 Elm av., Hackensack (2)
Deutel, Oscar R., 265 Newark av., Bloomfield (7)
Deutsch, Nathan S., 223 E. Fifth st., Plainfield (20)
DeVincentis, Henry, 285 Henry st., Orange (7)
DeVincenzo, F. Richard, 629Wash'gt'n st.,Hob'k'n(9)
DeVita, Anthony J., Wilson av., P. Monmouth (13)
Devlin, Arthur D., 138 Isabella av., Newark (7)
deVries, John K., 144 Harrison st., East Orange (7)
Dewis, Edwin G., 21 Westra st., Interlaken (7)
Dexter, Harriet E. T., 903 Avenue C, Bayonne (9)
De Yoe, Leon E., 602 Broadway, Paterson (16)
Dezer, Charles N., Jr., 210 Main st., Hackensack (2)
Diamond, David I., Oceanport av., Oceanport (13)
Diamond, J. George, 512 W. Front st., Plainfield(20)
Dias, Joseph L., Veterans Hosp., Lake City, Fla.(7)
Dickensheets, Jas. G., 4405 Westf'd av., Pen'k'n (4)
Dicker, Ralph L., 31 Lincoln Park, Newark (7)
Dickson, John D., 202 Larch av., Bogota (2)
Dickson, T. Bruce, 408 Main st., Riverton (3)
Diefendorf, Herbert W., 129 Summit av.,Summit(20)
Dieffenbach, Richard H., 570 Mt.Prosp't av.,New'k(7)
Dieker, Howard E., 78 Main st., South River (12)
Diener, Samuel, 14 Clinton pl., Newark (7)
Dierwechter, Reuben, 12 N. Providence av.,Atl.C.(1)
DiFino, Felix J., 172 Edison pl., Newark (7)
DiGiacomo, Harry E., 195 Hunterdon st., New'k(7)
DiGiacomo, William H., 223 Fairm'nt av.,Newark(7)
DiIelsi, Anthony J., 1013 S. 5th st., Camden (4)
DiLeo, Victor, 453 Park av., Orange (7)
Dimitrow, Helen, 236 Broad st., Red Bank (13)
D'Imperio, Francesco, 411 Cooper st., Camden (4)
Dimun, John T., 1000 S. Broad st., Trenton (11)
Dinge, Ferdinand C., 67 S. Munn av., E. Orange (7)
Dingman, Norman M., 330 Broadway, Paterson (16)
DiNicolantonio, Vincent J., 3121 Atl'tic av.,Atl.C.(1)
Dinneen, James B., 503 Park av., Plainfield (20)
DiNorcia, Joseph, 498 W. Market st., Newark (7)
Dintenfass, Arthur, 1616 Pacific av., Atlantic C. (1)
Dirdack, Morris, 12 James st., Morristown (14)
Dirr, John P., 785 Main av., Clifton (16)
Diskan, Samuel M., 1616 Pacific av., Atlantic C. (1)
Dmytriw, Stephen, 226 N. Park st., East Orange (7)
Dochtermann, Warren P., R. D. 1, Stanhope (14)
Dodd, William E.,Ocean st.& Bay av.,B'ch Hav'n(15)
Dodge, James T., 1819 S. Broad st., Trenton (11)
Doebele, William A., 1425 Wesley av., Ocean City(5)

Doggett, E. Hugh, 805 Park av., Plainfield (20)
Doherty, William, 830 N. Wood av., Linden (20)
Doktor, David, 648 14th av., Paterson (16)
Dolan, Gerald J., 118 Broadway, Hillsdale (2)
Dolganos, Moses, 268 Palisade av., Jersey City (9)
Dolsky, Irving, 509 N. Wood av., Linden (20)
Donchi, Sol M., 9 Madison av., Newark (7)
Donnelly, John H., 634 S. 20th st., Newark (7)
Donnelly, Joseph E., 445 Market st., Paterson (16)
Donnelly, Joseph P., 58 Kensington av., Jer. City(9)
Donohoe, Lucius F., 140 W. Eighth st., Bayonne (9)
Donovan, Joseph, N. J. State Hosp., Greyst'e P. (14)
Doody, William M., 19 Bentley av., Jersey City (9)
Doran, Ralph J., 200 11th st., Hoboken (9)
Doranz, Harold K., 502 W. State st., Trenton (11)
Dorr, Henry B., 466 Broadway, Long Branch (13)
Dougherty, Daniel D., 1218 Bl'mf'd st., Hoboken(9)
Douglass, Frederick W., 160 Lincoln st., Montc'r(7)
Douglass, William C., 15 Olcott av., Bernardsv'e(18)
Dowds, Samuel C., 218 Walnut st., Montclair (7)
Downing, Perley E., N. J. State Hosp., Trenton (12)
Downs, Louis S., 164 Pershing av., Carteret (12)
Doyle, George F., 80 Glenwood rd., Englewood (2)
Doyle, John J., 426 Fairmount av., Jersey City (9)
Drake, Daniel E., Union Valley rd., Newf'dland(16)
Drake, Leo B., 47 Main st., Franklin (19)
Drake, Paul F., 85 Summit av., Phillipsburg (21)
Dranow, Paul, 233 Franklin av., Nutley (7)
Drapkin, Berta, 31 Lincoln Park, Newark (7)
Dreizin, David, 201 Lyons av., Newark (7)
Dresel, Irmgard, Mine Brook rd., Far Hills (18)
Dreskin, Jacob L., 34 Lyons av., Newark (7)
Dresner, Evelyn E., 190 Park st., Ridgefield P. (2)
Drewniany, Bernardine, 548 Page av., Lyndh'st(7)
Drews, Francis F., Jr., 530 Broad av., Englew'd (2)
Drezner, Henry L., 216 W. State st., Trenton (11)
Driggs, Marshall F., 242 Engle st., Englewood (2)
Driscoll, Charles D., 475Wt.HorsePk.,W.Col'gsw'd(4)
Driscoll, Raymond S., 117 W. Fifth st., Bayonne (9)
Drossner, Jacob L., 1300 Park Blvd., Camden (4)
Drucker, Victor, 786 Palisade av., Teaneck (2)
duBusc, L. C. Victor, 399 Westfield av.,Elizabeth(20)
Dudley, Henry G., 222 Sylvania pl., Westfield (20)
Duffy, Edward P., Jr., 379 Wash'gton av.,Bellev'e(7)
Dukes, Howard R., 220 Kearny av., Kearny (9)
Dul, Emil J., 154 Plauderville av., Garfield (2)
Dulany, Theodore L., 170 W. Market st., Newark (7)
Dulin, Everett V., 144 Harrison st., East Orange(7)
Duncan, Owsley B., 414 Ellison st., Paterson (16)
Dunham, Malcolm M., 88 Grove av., Woodbridge(12)
Dunn, H. Irving, 610 Salem av., Elizabeth (20)
Dunn, John S., 75 Market st., Salem (17)
Dunn, Theodore B., 35 Park pl., Bloomfield (7)
Dupuy, Jean G., 850 Jersey av., Elizabeth (20)
Durchlag, E. Nelson, 60 Myrtle av., Irvington (7)
Durham, Frederick W.,20 KingsHwy.,W.,Had'nf'd(4)
Durham, Robert B., 110 S. N. Carolina av., Atl. C.(1)
Durham, Royal E., 100 S. New Haven av.,Ventnor(1)
Durrah, Fred F., 310 Plainfield av., Plainfield (20)
Duschock, Edward F., 473 Amboy av., P. Amboy(12)
Duvall, Albert I., N. J. State Hosp., Marlboro (13)
Dwork, Harold K., 1 Hansbury av., Newark (7)
Dwoyer, Leon C., 420 N. Wood av., Linden (20)
Dwyer, William A., 99 Park av., Paterson (16)
Dyer, Edward H., 102 S. Victoria av., Ventnor (1)

ASSOCIATE MEMBERS

Davis, John, 10 Washington st., Bloomfield (7)
deBlois, Joseph A., Jr., Naval Air Sta.,Lakehurst(11)
DeLuccia, Ralph L., 428 Park av., Paterson (16)
Dern, Samuel M., 444 School st., Woodbridge (12)
Donauer, Robert M., 34 Bedford rd., Summit (7)
Dooley, James H., 295 Montgomery st., Bloomfield(7)
Duffy, William J., 22 Nairn pl., Newark (7)
Dwulet, Leon, State Home for Boys, Jamesburg(12)

E

ACTIVE MEMBERS

Eames, William N., 1871 Pennington rd.,Trenton(11)
Earp, Ruth, 15 Olcott av., Bernardsville (14)
Eason, Samuel W., 48 De Forest av., Summit (20)
Ebenfeld, Samuel W., 344 High st., Newark (7)
Ebner, Paul G., 408 Overhill rd., Haddonfield (4)
Echikson, Joseph I., 31 Lincoln Park, Newark (7)
Eck, Daniel B., 144 Harrison st., East Orange (7)
Eckert, Walter L., 11532 Dilling st., N.Hollyw'd,C.(1)
Eckhardt, Janet L., 120 Prospect st., S. Orange (7)
Eckhardt, Ralph A., 50 Green Vil. rd.,Madison(14)
Eckstein, David, 407 Greenwood av., Trenton (11)
Eddy, Lester R., 40 Bank st., Sussex (19)
Edelberg, Sidney S., 403 E. High st., Bd. Brook(18)
Edelen, James J., 100 S. Munn av., East Orange (7)
Edelson, Edmond, 127 Lehigh av., Newark (7)
Edelson, Samuel, 1611 Grand av., Asbury Park (13)
Edelstein, Isidore, 938 Hudson st., Hoboken (9)
Edgar, Malcolm S., 129 Summit av., Summit (20)
Edgerly, Sherburn E., 220 Engle av., Englewood (2)
Edlkraut, Edward C., 320 Lexington av., Clifton(16)
Edson, James, 336 Belmont av., Haledon (16)
Edwards, J. Bennett, 144 Woodridge pl., Leonia (2)
Edwards, Lena F., 358 Pacific av., Jersey City (9)
Edwards, Sydney K., 52 Lexington dr.,Livingston(7)
Edwards, Walter R., 2624 Quaker Br.rd.,M'rc'rv'e(11)
Ehrenfeld, Irving, 185 Lexington av., Passaic (16)
Ehrlich, Edward, 838 S. 13th st., Newark (7)
Ehrlich, Max, 721 N. Broad st., Elizabeth (20)
Ehrlich, William E., 31 Lincoln Park, Newark (7)
Ehrlich-Morrow, Laura E., 585 Main av., Passaic(16)
Eichler, Bernard B., 221 Midland av., Montclair (7)
Ein, William B., 31 Lincoln Park, Newark (7)
Einhorn, Samuel E., 241 16th av., Newark (7)
Eisemann, Jerome S., 38 Main st., Butler (16)
Eisenberg, David S., 31 Lincoln Park, Newark (7)
Eisenhower, J. S. D., 2704 Pacific av., Wildwood (5)
Eisenstodt, Lester W., 31 Lincoln Park, Newark(7)
Elias, Elmer J., 474 Greenwood av., Trenton (11)
Ellenbogen, Leonard S., 5407 Atlantic av.,Ventnor(1)
Ellenson, Solomon S., 507 Fourth av., Asbury P.(13)
Elliott, Frazier J., 10 N. Second st., Hammonton(1)
Ellis, Alexander, 519 Broadway, Camden (4)
Ellis Arthur J., 140 Roseville av., Newark (7)
Ellis, Ralph W., 64 Fairview av., Morrisville,Pa.(11)
Ellmers, Basil J., 304 Milford av., New Milford (2)
Elwell, Alfred M., Jr., 149 E. Main st., Moorest'n(3)
Elwood, Benjamin J., 91 W. 38th st., Bayonne (9)
Ely, Lancelot, 128 W. High st., Somerville (18)
Emmer, S. Wolfe, 31 Lincoln Park, Newark (7)
Emory, George B., Jr., 1 Franklin pl.,Morristown(14)
Englander, Charles, 41 Hillside av., Newark (7)
English, Harrison F., III, 160 W.State st.,Trent'n(11)

English, John T., 110 Yale av., Irvington (7)
Epstein, Harry B., 31 Lincoln Park, Newark (7)
Epstein, William M., 322 E. Westfield av.,Ros'leP.(7)
Erber, Leonard B., 1902 Pacific av., Atlantic City(1)
Erdman, George L., 853 Chancellor av., Irv'gton(7)
Erler, Robert E., 360 Prospect st., S. Orange (7)
Ernest, Richard B., 240 W. State st., Trenton (11)
Ernst, Philip A., 16 E. Main st., Mays Landing (1)
Ervin, Millard B., 36 Canterbury lane, Westfield(7)
Esposito, Amedeo C., N.J. State Hosp.,Gr'yst'eP.(14)
Esposito, Anthony L., 246 Lexington av., Passaic(16)
Esposito, Antonio L., 31 12th st., Hammonton (1)
Essertier, Edward P., 275 State st., Hackensack (2)
Essertier, Harland C., 263 Franklin av., Ridgew'd(2)
Esty, Geoffrey W., 629 E. Broad st., Westfield (20)
Etheridge, Charles H., 433 Prospect st., E. Orange(7)
Ettinger, Samuel, 501 32nd st., Union City (9)
Eulner, Elmer H., 216 Henry st., South Amboy (12)
Evans, Charles H., 144 Harrison st., E. Orange (7)
Evans, David P., 144 Harrison st., East Orange (7)
Evans, Edgar E., 12 Ziegler Tract, Penns Grove (17)
Evans, Edgar J., 25 Second av., Denville (14)
Evans, J. Lawrence, 7117 Park av., Woodcliff (9)
Evans, J. Lawrence,Jr.,254 Christie Hts.st.,Leonia(2)
Evans, John R., Jr., 496 Prospect st., Maplewood(7)
Ewens, Arthur E., 3600 Pacific av., Atlantic City(1)
Ewing, Harvey M., 31 Trinity pl., Montclair (7)
Ewing, Leslie H., 10 Broad st., Berlin (4)
Eynon, Harold K., 538 Cooper st., Camden (4)
Eynon, James R., 20 E. Knight av., Collingswood(4)

ASSOCIATE MEMBERS

Einhorn, Harvey, 241 16th av., Newark (7)
Erskine, Frederick A., Vets. Hosp., Oteen, N. C. (1)
Evans, H. Walter, Jr.,Fitkin Mem.Hosp.,Nept'ne(13)

F

ACTIVE MEMBERS

Faber, Edward, 154 Bergen av., Jersey City (9)
Fabian, Paul L., 520 Princeton av., Trenton (11)
Facciolo, Frank, 562 Boulevard, Bayonne (9)
Fader, Ferdinand, 350 Springdale av., E. Orange (7)
Fager, Rudolph O., 53 Park pl., Bloomfield (7)
Fahrenbruch, Freder'k D.,101 Garden st.,Mt.Holly(3)
Failing, Brayton E., 31 Lincoln Park, Newark (7)
Failmezger, Theodore R., 125 Green av., Madison(14)
Fain, Irving, 155 Chancellor av., Newark (7)
Faison, John B., 45 Glenwood av., Jersey City (9)
Falcone, Albert M., 502 E. Broad st., Westfield (20)
Falcone, Nicholas A., 68 Watchung av.,N.Pl'nf'd(18)
Falconer-Slater, Katherine, Katonah, N. Y. (20)
Falvello, Nicholas A., 21 Wetmore av.,Morrist'n(14)
Fanburg, Sol J., 31 Lincoln Park, Newark (7)
Fanelli, Antonio, 494 Compton av., Perth Amboy(12)
Farb, Harry H., 21 Clinton pl., Newark (7)
Farkas, Gustav, 255 Harrison st., Passaic (16)
Farmer, Walter D., 28 S. Main st., Allentown (11)
Farr, Walter J., 955 Queen Anne rd., Teaneck (2)
Farrell, Edgar A. H., 26 Kings Hwy.,W.,Had'nf'd(4)
Fasano, Giovanni, 194 S. Seventh st., Newark (7)
Fath, Marcus A., 108 E. Glenwood av., Wildw'd(5)
Fattel, Henry C., 8300 Boulevard, N. Bergen (9)
Faulkingham, Ralph J.,61Liv'st'n av.,N.Br'nsw'k(12)
Fauquier, Leonard B., 172 Jewett av., Jer. City (9)
Faux, Freder'k J., 32 N. Columbia st., Woodb'y(8)
Fava, Philip V., 646 Sanford av., Newark (7)
Fazio, Vincent J., 227 Augusta st., S. Amboy (12)
Featherston, Daniel F., 601 Bangs av., Asbury P.(13)
Fechner, Fred J., 846 Garrison av., Teaneck (2)
Fechner, Herta, 846 Garrison av., Teaneck (2)
Fechner, Julius, 362 Clinton av., Newark (7)
Federer, John J., 69 Columbia ter., Weehawken (9)
Feher, Ladislas A.M.,177 Somerset st.,N.Br'sw'k(12)
Fein, Bernard, 585 Elizabeth av., Newark (7)
Feinberg, Harry, 837 Avenue C, Bayonne (9)
Feinberg, Harry D., 384 Second av., L. Branch (13)
Feinsod, Samuel N., 1305 Clinton av., Irvington (7)
Feinstein, Louis, 410 Pacific av., Atlantic City (1)
Felder, Samuel, 221 Main st., Flemington (10)
Feldman, Frank H., 115 Lyons av., Newark (7)
Feldman, Joel, 64 West Front st., Red Bank (13)
Feldman, Morris, 51 Bentley av., Jersey City (9)
Feldman, Noah, 626 Bergen av., Jersey City (9)
Feleppa, Edward E., 618 Springf'd av., Summit(20)
Feliciano, Vincent, 286 Lafayette av.,Hawthorne(16)
Feller, William, 283 Bergen av., Jersey City (9)
Feman, J. George, 141 Main st., Keansburg (13)
Fendrick, Edward, 17 Watson av., East Orange (7)
Fenster, Morton N., 202 Lexington av., Passaic(16)
Fenton, Tennant E., 320 Ludlow av., Spring L. (13)
Fenwick, John R., 196 Lakeview av., Clifton (16)
Ferenchak, Ralph, 219 Martine av.,N.,Fanwood (20)
Ferguson, John, Mon. Mem. Hosp., L. Branch (13)
Fermaglich, Harry B., 881 Garrison av., Teaneck(2)
Fern, Samuel S., 122 Elizabeth av., Newark (7)
Fernicola, Anthony R., 565 Mt. Prosp't av.,New'k(7)
Ferrante, Joseph, 803 Prospect av., Ridgefield (2)
Ferrari, Andrew F., 196 Main st., E. Rutherford (2)
Ferrari, Salvatore, 372 21st av., Paterson (16)
Ferrary, Paul B., 232 Totowa rd., Totowa (16)
Fessler, A. James, 1544 S. Broad st., Trenton (11)
Fessman, John W., 114 Clements Br. rd.,Run'm'de(4)
Feuer, Joseph A., 59 Seeley av., Arlington (7)
Fialk, Harry, 337 52nd st., West New York (9)
Ficke, Sylvia A., 906 Summit av., Jersey City (9)
Ficker, Robert F., Ogdensburg (16)
Fidler, William L., III, Laurel rd., Stratford (4)
Fiedler, Michael J., 2368 S. W. 4th st.,Miami,Fla.(20)
Field, Frank L., Far Hills (18)
Fielding, William M., 15 Waldwick av., Waldw'k(16)
Fiering, Abraham M., Pompton Tpk.,MountainV.(16)
Fietti, Vincent G., 112 Ridge rd., Lyndhurst (2)
Fifer, Willlam T., 746 Avenue C., Bayonne (9)
Figliolino, Francis, 272 W. Milton av., Rahway (20)
Figurelli, Francis A., 88 Highland av., Jer. City (9)
Filkins, Cedric E., 412 White Horse Pk.. Audubon(4)
Finby, Nathaniel, 46 Main st., Netcong (14)
Fine, Hyman P., 151 Market st., Perth Amboy (12)
Fine, Irvin J., Hobart Building, Perth Amboy (12)
Fine, Sydney G., 868 Stuyvesant av., Trenton (11)
Fineberg, Jacob C., 50 Glenwood av., Jersey City(9)
Finegan, Paul J., 200 W. State st., Trenton (11)
Finger, Frederick A., 943 Avenue C, Bayonne (9)
Fink, A. Elston, 489 High st., Newark (7)
Fink, Irving E., 71 Lincoln Park, Newark (7)
Fink, Stanley J., 221 Chestnut st., Roselle (20)
Finke, Charles H., 317 York st., Jersey City (9)
Finke, Charles H., Jr., 317 York st., Jersey City (9)
Finke, George W., 237 State st., Hackensack (2)
Finke, John H. D., 19 Hudson st., Hackensack (2)

Finkel, Joshua, 853 S. 11th st., Newark (7)
Finkelstein, Aaron, 762 S. 10th st., Newark (7)
Finkelstein, Abe S., 670 Clinton av., Newark (7)
Finkelstein, Malvin, 2139 Boulevard, Jersey City (9)
Finkelstein, Max, 3258 Boulevard, Jersey City (9)
Finkle, Lester J., 495 W. State st., Trenton (11)
Finkler, Rita S., 35 Leslie st., Newark (7)
Finn, Frederick A., 921 Bergen av., Jersey City (9)
Finn, Henry R. W., 84 Lembeck av., Jersey City (9)
Finnegan, William R., 153 Som'set st.,N.Br'sw'k(12)
Finnerty, Urban R., 71 Park st., Montclair (7)
Fiorello, Joseph R., 689 Princeton av., Trenton (11)
Fioretti, Ralph J., 315 Rochelle av., Rochelle Pk. (2)
Fischbein, Martin M., 976 Sanford av., Irvington(7)
Fischer, David D., 35 Goldsmith av., Newark (7)
Fischer, Leo E., 70 Sherman pl., Jersey City (9)
Fischman, Harold H., 326 Avon av., Newark (7)
Fischman, Mervin, 264 Clinton pl., Newark (7)
Fisher, James A., 501 Grand av., Asbury Park (13)
Fisher, Samuel, 808 Madison av., Paterson (16)
Fishkoff, Alexander H., 132 Market st., P.Amboy(12)
Fissell, George M., 140 Roseville av., Newark (7)
Fitch, Thomas S. P., 916 Park av., Plainfield (20)
Fitzgerald, Robert, 77 Lincoln Park, Newark (7)
Fitzhugh, William F., 190 Euclid av., Ridgef'd P.(2)
Fitzpatrick, Leo J., 541 Churchill rd.,W.Englew'd(2)
Flanagan, James F., 620 Summer av., Newark (7)
Flanagan, John J., 173 Roseville av., Newark (7)
Flax, Ira I., 890 S. 16th st., Newark (7)
Fleischmann, Viola G., 103 Scotland rd., S. Orange(7)
Fleming, Charles L., 42 W. Main st.,PennsGrove(17)
Fleming, Joseph A., 247 Claremont av., Montclair(7)
Flichtenfeld, Morris, 283 Fourth st., Jersey City (9)
Flicker, David J., 82 Clinton av., Newark (7)
Fliegel, Hilda C., 309 Baldwin av., Jersey City (9)
Fliegel, William M., 85 W. Passaic st., Maywood (2)
Flint, Edgar T., 44 E. Somerset st., Raritan (18)
Floody, Robert J., 324 Kingsland st., Nutley (7)
Flower, Morrie A., 39 Lincoln Park, Newark (7)
Fluck, David A., 626 W. State st., Trenton (11)
Fluck, Paul H., 73 N. Union st., Lambertville (10)
Flynn, Edward A., 176 Washington av., Bellev'e (7)
Foley, James F., 344 N. Grove st., East Orange (7)
Foley, James G., Bernardsville (14)
Folsome, Clair E., 1075 Central av., Plainfield (20)
Fonda, Gerald E., 350 Millburn av., Millburn (7)
Fooder, Horace M., 110 Main st., Williamstown (8)
Fiote, Sherman K., Clinton av., Wyckoff (16)
Forbes, John S., Jr., W. Craig st., Basking R. (14)
Ford, Theodore R., 144 Harrison st., E. Orange (7)
Forer, Robert, 434 Bellevue av., Trenton (11)
Forney, Norman N., 94 N. Main st., Milltown (12)
Forney, Norman N., Jr., Stelle av., Milltown (12)
Forsberg, Roy T., 110 W. Fifth st., Roselle (20)
Fort, William B., 147 E. Seventh st., Plainfield (20)
Fortay, Steven O., 474 Park av., Paterson (16)
Forte, Daniel L., 545 Central av., Orange (7)
Forte, F. Chester, 374 Park st., Hackensack (2)
Forte, Frank S., 318 Roseville av., Newark (7)
Fortuin, Floyd, 434 Park av., Paterson (16)
Fortunato, Samuel J., 90 Kenwood pl., E. Orange (7)
Fost, William H., 107 Franklin st., Belleville (7)
Foster, Frank L., 320 Springfield av., Cranford (20)
Foster, Herbert W., 2 Erwin Park, Montclair (7)
Fowler, Royale H., 744 Broad st., Newark (7)
Fox, Wm. W., 101 S. Indiana av., Atlantic City (1)
Frame, Dorothy L., 15 Highland av., Glen Ridge (7)
Francy, Donald G., 314 Stuyvesant av., Lyndhurst(7)
Frank, Geza M., 56 Hedden ter., Newark (7)
Frank, Morris, 920 Avenue C, Bayonne (9)
Frank, Myrtile, 227 Philadelphia av., Egg Harbor(1)
Frank, Nathan, 180 Bowers st., Jersey City (9)
Frank, Perry, 227 Philadelphia av., Egg Harbor (1)
Frank, Simon C., 62 Ridge rd., North Arlington (7)
Frankel, Henry, 229 60th st., West New York (9)
Frankel, Theodore H., 600 Crescent av., Pl'nf'd(20)
Franklin, Charles M., 56 Elm rd., Princeton (11)
Franklin, Frank A., 256 S. Centre st., Orange (7)
Franklin, I. Harold, 191 Palisade av., Jersey City(9)
Franklin, Joseph E., 191 North av., Hillside (20)
Franklin, Lewis J., 149 Jean ter., Union (20)
Frantz, Max K., 624 S. 5th st., Camden (4)
Franzoni, Andrew E., 938 Brunsw'k av.,Trent'n(11)
Fratantuno, Michael J., 14 Vermont av., Newark(7)
Fraulo, Louis, 241 Crooks av., Clifton (16)
Freda, Franklin, 63 Fourth st., Newark (7)
Freedman, Harold H., 63 W. Main st., Freehold (13)
Freeland, Frank, 39 Catalpa av., Hackensack (2)
Freeman, George C., Prudential Ins. Co., Newark(7)
Freeman, Ray M., 2011 St. Georges av., Rahway (20)
Freeman, William S., 117 N. Third av.,Highl'd P.(12)
Freinkel, Jacob, 2 Hillside av., Newark (7)
Freyberger, George A., 85 Columbia ter.,Weeh'k'n(9)
Freymann, Walter, 5006 Hudson av., W. N. Y. (9)
Fridrich, Harry E., 4172 Federal st., Camden (4)
Friedburg, George H., 1108 Anna st., Elizabeth (20)
Friedenberg, Sidney, 2990 Alabama rd., Camden (4)
Friedenthal, Bernard, 88 Liv'gst'n av.,N.Br'sw'k(12)
Friedland, Arnold J., 200 N. East av., Vineland (6)
Friedlander, Aik, 213 Westfield av., Elizabeth (20)
Friedlander, Kurt F., 25 S. Munn av., E. Orange (7)
Friedman, Abraham I., 405 State st., Hackensack(2)
Friedman, Edna C., 584 Broadway, Paterson (16)
Friedman, Harry, 721 S. 16th st., Newark (7)
Friedman, Hyman, 90 W. 40th st., Bayonne (7)
Friedman, Max, 849 W. State st., Trenton (11)
Friedman, Meyer H., 949 W. State st., Trenton (11)
Friedmann, Gustav, 425 Park av., Paterson (16)
Friedmann, Leonard L., 484 Princeton av.,Tr't'n(11)
Friery, John F., 297 S. Wash'gton av.,Berg'nf'd (2)
Frisch, Felix, 726 W. State st., Trenton (11)
Fritsch, Alfred, 123 E. 53rd st., New York, N. Y. (7)
Fritts, Lewis C., 118 West End av., Somerville (18)
Fritz, John F., Jr., 95 Main st., Flemington (10)
Froelich, Jerome J., 74 Ingraham pl., Newark (7)
Froelich, Joseph C., 74 Ingraham pl., Newark (7)
Frohwein, Ida H., 125 Morristown rd., Elizabeth (20)
Fromkin, Charles, 20 Bank st., Bridgeton (6)
Frosch, Frank J., 1423 Pennington rd.,Trenton(11)
Frost, Inglis F., 181 South st., Morristown (14)
Fruchtbaum, Robert P., 431 Franklin av., Nutley (7)
Fuchs, Jacob N., 1267 S. Broad st., Trenton (11)
Fuhrmann, Barclay S., 10 Main st., Flemington (10)
Fuhrmann, John B., 10 Main st., Flemington (10)
Furey, Joseph A., 224 E. Wildwood av., Wildw'd(5)
Furman, Benjamin A., 31 Roseville av., Newark (7)
Furman, Sol T., 344 Fairmount av., Jersey City (9)
Furst, Nathan J., 299 Clinton av., Newark (7)
Furst, William, 188 Clinton av., Newark (7)

ASSOCIATE MEMBERS

Farber, Herbert R., 675 Broadway, Paterson (16)
Fasanella, Rocco, P.O. Box 1001, New Haven, C.(11)
Fedor, John A., 969 S. Broad st., Trenton (11)
Feld, Leo, 155 Lexington av., Passaic (16)
Feldman, Matthew, 120 Bogart rd., N. Hackens'k(2)
Fisher, James A., Jr., 601 Grand av.,Asbury Pk.(13)
Frederick, George F., 179 Main st., Woodbridge (12)
Freund, Seelig, 617 W. State st., Trenton (11)
Friedland, Walter, 210 Main st., Hackensack (2)
Fullilove, Robert E., Jr., 24 Waverly av., Newark(7)

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ACTIVE MEMBERS

Gadek, Stanley A., 95 Fayette st., Perth Amboy (12)
Gadek, William V., 215 High st., Perth Amboy (12)
Gadomski, Casimir F., 331 S. Broad st., Elizabeth(20)
Galgoczy, Julius, 16 E. Camplain rd., Manville (18)
Galioto, Frank M., 188 Ampere Pkwy,. Bloomf'd (7)
Gallardo, Agustin, 61 Lakeside av., Pompton L. (16)
Gallaway, George E., 163 W. Milton av., Rahway(20)
Gallo, James S,. 660 Broadway, Paterson (16)
Gamba, Joseph, 388 Fairmount av., Newark (7)
Gambacorta, Leopoldo, 397 N. 13th st., Newark (7)
Gambacorta, Otto, 98 Broad st., Bloomfield (7)
Gambill, Perry J., N. J. State Hosp.,Greyst'neP.(14)
Gamon, Robert S., 514 Cooper st., Camden (4)
Gamsu, George, Army (7)
Ganley, Arthur J., 390 Park av., East Orange (7)
Gannon, John R., Passaic Gen. Hosp., Passaic (16)
Gannon, Joseph M., 149 Crescent av., Plainfield (20)
Ganot, Frank I., 392 Ridge st., Newark (7)
Gantt, Margaret H., 43 Hillcrest rd., Madison (14)
Garber, Robert S., N. J. State Hosp., Trenton (11)
Gardam, James D., 16 Longfellow av., Newark (7)
Gardam, Joseph W., 16 Longfellow av., Newark (7)
Gardiner, Muriel M., Brookdale Farm, Penn'gt'n(11)
Gardner, Kenneth E., 45 Fremont st., Bloomfield (7)
Garfinkel, Abraham, 1801 Greenw'd av.,Trent'n(11)
Garibaldi, Louis J., 1018 Hudson st., Hoboken (9)
Garnett, Robert, 204 Madison st., Passaic (16)
Garrison, Sherman, 108 W.Commerce st.,Bridget'n(6)
Garrison, W. Sherman, Main st., Cedarville (6)
Gartlan, Bernard W., Main st., Toms River (15)
Garwood, Norman W., Main st., Crosswicks (11)
Gatti, Joseph D., 92 E. Hunter av., Maywood (2)
Gaydos, Albert, 225 Hillside av., Nutley (7)
Gaylor, Earl L., Jr., 85 S. Harrison st., E. Orange(7)
Geannette, Ernest D., 14 Harrison av., Montclair(7)
Geary, Daniel J., 5 Community pl., Morristown (14)
Geary, Paul, 909 Park av., Plainfield (20)
Gebele, William X., Jr., 310 Main st., Lakewood (15)
Ged, Archie K., 1133 Main st., Paterson (16)
Gehl, Raymond H., 114 Lyons av., Newark (7)
Gehl, Sidney H., 83 Wolcott ter., Newark (7)
Geib, Margaret E., 1277 Clinton pl., Elizabeth (20)
Geiger, Harold C., Main st., West Milford (16)
Geissler, Elmer E., 327 Monmouth st., Gloucester(4)
Gelb, Jerome, 86 W. Alpine st., Newark (7)
Gelber, Isaac, 712 N. Broad st., Elizabeth (20)
Geller, Joseph J., 137 Ellison st., Paterson (16)
Geller, Samuel, 696 High st., Newark (7)
Gellman, William B., 163 Valley Blvd.,Wood-R'ge(16)
Gelman, Sidney, 600 E. 27th st., Paterson (16)
Gencher, Benjamin, 33 Park av., Caldwell (7)
Gennell, Ernest, 298 Parker st., Newark (7)
Genninger, Lewis E., 8 Market st., Phillipsb'g (21)
Gentile. Ernest R., 125 Hamilton st., Bd. Brook (18)
George, Amerigo, 153 Third av., Long Branch (13)
George, Melbourne E. W., 744 Broad st., Newark (7)
Gerard, Arpad G., 502 Rahway av., Woodbridge (12)
Gerard, Patrick D., 364 Roseville av., Newark (7)
Gerendasy, Julius, 956 E. Jersey st., Elizabeth (20)
Gerhardt, Paul E., 718 S. 17th st., Newark (7)
Germain, Raymond J., Clinton (10)
German, Bernard, 89 Lincoln Park, Newark (7)
German, George B., 15 W. Walnut av., Merch'tv'e(4)
Gerne, Timothy A., 972 Summit av., Jersey City (9)
Gerner, Harry E., 2627 Boulevard, Jersey City (9)
Gershenfeld, David B., 73 Shanley av., Newark (7)
Gershman, Joseph G., 185 E. Madison av.,Dumont(2)
Gerson, Stanley, 480 Park av., Paterson (16)
Gerwanter, Aaron P., Somers't Co.Hosp.,Som'rv'e(18)
Gessner, Gerard R., 159 New st., N. Br'nsw'k (12)
Gesswein, Carl A., 35 Church st., Matawan (13)
Ghee, Euclid P., 115 Claremont av., Jersey City (9)
Giacalone, Vincent, East Landis av., Vineland (6)
Giacona, Joseph, 221 Lincoln av., Union (20)
Giambra, Sante M., 400 Park av., Paterson (16)
Gian-Grasso, Joseph A., 971 S. Broad st.,Trenton(11)
Giannasio, Joseph, 813 Montgomery st., Jer. City (9)
Gianni, Angelo R., 37 Main st., Netcong (14)
Giannotto, Anthony S., 403 S. 10th st., Newark (7)
Gianquinto, Peter, St. Barnabas Hosp., Newark (7)
Giardina, John S., 341 Walnut st., Newark (7)
Giardina, Vincent J., 102 Jefferson st., Newark (7)
Gibb, Alice S., 339 Union av., Elizabeth (20)
Gibson, Augustus, Mendham (7)
Giffoniello, Arthur A., 334 Roseville av., Newark (7)
Gifford, William R., 247 Park av., East Orange (7)
Giglio, Alphonsus S. V., 626 Elizab'h av.,Eliz'b'h(20)
Gilady, Raphael, 205 Union st., Hackensack (2)
Gilbert, Philip D., 514 Cooper st., Camden (4)
Gilbert, Samuel M., 144 Clinton av., Newark (7)
Gilbertson, Robert L., 26 Maple av., Morristown (14)
Gillespie, John L., 26 Midland av., Arlington (7)
Gilligan, Walter W., 164 Forest av., Glen Ridge (7)
Gilman, Charles M. B., Box 487, Red Bank (7)
Gilman, Leonard, 6 S. Fullerton av., Montclair (7)
Gilpatrick, Charles E., 18 Spring st., PennsGrove(17)
Gilpin, Fletcher, 118 North av., W., Cranford (20)
Gindhart, Floyd D., 1233 Hamilton av., Trenton (11)
Gindhart, John H., 1233 Hamilton av., Trenton (11)
Ginsberg, George, 624 Bloomfield st., Hoboken (9)
Ginsberg, Leon, Essex County Hosp., Cedar Grove(7)
Ginsberg, Samuel, 227 Paulison av., Passaic (16)
Giordano, Salvatore, 13 DeHart st., Morristown (14)
Giordano, William C., 948 Maple av., Ridgefield (2)
Girardo, Anthony J., 22 Taunton av., Berlin (4)
Gittelman, Morton, 879 Newark av., Elizabeth (20)
Gittelsohn, Isador, 700 Kinderkam'k rd.,River E.(2)
Gitterman, David A., 519 Engle st., Englewood (2)
Giuffra, Frank, 161 Park st., Montclair (7)
Giuliana, Robert A., 31 Central av., Newark (7)
Glaser, Emanuel, 360 Linden av., Elizabeth (20)
Glass, Benjamin E., 609 Watchung av.,Plainfield(20)
Glass, George A., 282 E. Main st., Somerville (18)
Glass, Harry L., 1009 Park av., Plainfield (20)
Glass, Oscar, 838 S. 12th st., Newark (7)
Glass, William H., 144 Harrison st., East Orange(7)
Glasser, Benjamin F., 32 Lindon av., Highl'd P.(12)
Glazebrook, Francis H., Honeys'kle W'ds,R'ms'n(14)
Glazer, Edward, 84 Richmond pl., Deal (13)
Glazier, Jesse T., 670 Sanford av., Newark (7)
Gleason, Edwin A., 115 Wesley av., Erlton (4)
Gleeson, Thomas P., 82 W. Fifth st., Bayonne (9)
Glick, Bernard, 307 Stuyvesant av., Lyndhurst (2)
Gluckman, Saul K., 78 Johnson av., Newark (7)
Glynn, S. Robert, 54 Girard pl., Newark (7)
Gnassi, Angelo M., 130 Wegman Pwy.,Jersey C. (9)
Gochman, Harry M., 166 Hamilton av., Paterson(16)
Godfrey, Alan O., 231 Roseville av., Newark (7)
Goehring, Harrison D., 141 Central av., Montcl'r(7)
Goeller, Jacob D., 1165 W. Clinton av., Irvington (7)
Goffman, Emanuel, 316 Claremont av., Montclair(7)
Goldberg, Benjamin M., 1156 E. State st.,Trent'n(11)
Goldberg, Bernard R., 89 Lincoln Park, Newark (7)
Goldberg, David, 336 Westwood av., Westwood (2)
Goldberg, Harold H., 814 S. 10th st., Newark (7)
Goldberg, Harry C., 7 Watchung av., Plainfield (20)
Goldberg, Isidore, 303 N. Wash'gton av., Dunel'n(12)
Goldberg, Louis E., 31 Lincoln Park, Newark (7)
Goldberg, Samuel A., 169 Gregory av., W. Orange(7)
Golden, Clement H., 347 16th av., Irvington (7)

Goldenberg, Raphael R., 588 E. 27th st.,Paterson(16)
Goldfarb, Abraham, 52 Chestnut st., Rutherford (2)
Goldfield, Harold H., 225 E. Jersey st., Elizabeth(20)
Golding Harry N., 180 Carroll st., Paterson (16)
Goldmacher, Herman B., 113 Elmora av.,Elizab'h(20)
Goldman, David L., 42 W. 22nd st., Bayonne (9)
Goldman, Jerome, 1 Johnson av., Newark (7)
Goldman, Leo L., 325 Market st., Trenton (11)
Goldman, Lester M., 53 Leslie st., Newark (7)
Goldman, Samuel, 527 Cooper st., Camden (4)
Goldman, Solomon, 161 Livingston av.,N.Br'sw'k(12)
Goldmann, Joseph, 103 N. Walnut st., E. Orange(7)
Goldsmith, Alfred S., 8129 Boulevard, N. Bergen (9)
Goldstein, Abraham, 404 Madison av., Lakewood(15)
Goldstein, Benjamin, 320 Asbury av., Asbury P. (13)
Goldstein, Henry Z., 31 Lincoln Park, Newark (7)
Goldstein, Herman H., 318 W. Jersey st.,Elizab'h(20)
Goldstein, Hyman I., 1425 Broadway, Camden (4)
Goldstein, Joseph D., 681 Bergen av., Jersey City(9)
Goldstein, Samuel, 34 E. Main st., Mays Landing (1)
Goldstein, Samuel M., 40 Johnson av., Newark (7)
Golish, Harry L., 425 15th av., Paterson (16)
Gonczy, Edward J., 420 Jersey av., Elizabeth (20)
Goodman, Kenneth, 141 Park av., East Orange (7)
Goodman, Stanley J., 89 Lincoln Park, Newark (7)
Goodspeed, William K., Oakwood rd., Watch'g(20)
Gordon, A. Julius, 140 Roseville av., Newark (7)
Gordon, Abel, 616 Main av., Passaic (16)
Gordon, Benjamin L., 6917 Atlantic av., Ventnor (1)
Gordon, Charles D., Mt. Arlington (14)
Gordon, Isaac L., 1815 Boulevard, Jersey City (9)
Gordon, J. Berkeley, N. J. State Hosp., Marlboro(13)
Gordon, Maurice B., 6917 Atlantic av., Ventnor (1)
Gordon, Milton H., 12 N. 27th st., Camden (4)
Gordon, Norman W., 810 Canton st., Elizabeth (20)
Gordon, Samuel, 540 Park av., Paterson (16)
Gordon, Sarah, 327 Cedar lane, Teaneck (2)
Gordon, William, 648 Ringwood av., Wanaque (16)
Gorenberg, Harold, 451 Bramhall av., Jersey C. (9)
Gorman, Robert B., 410 Kinderkamack rd.,Oradell(2)
Gormley, Cyrus M., 320 Broadway, Paterson (16)
Gorog, Nicholas M., 159 Bayard st., N. Br'sw'k (12)
Gorson, Samuel F., 2005 Pacific av., Atlantic City(1)
Gorten, Manfred L., 669 Elizabeth av., Newark (7)
Gosper, Ralph W., 5719 Westf'd av.,Penns'k'nTsp.(4)
Gottlieb, Morris, 1616 Pacific av., Atlantic City (1)
Gould, John H., 92 Monte Vista av., Ridgewood (16)
Gould, Louis F., 95 Market st., Perth Amboy (12)
Gould, Werner, 219 Passaic st., Hackensack (2)
Gove, Richard R., Jr., 46th & Blvd., Brant Beach(15)
Goyne, James B., 2785 Main st., Lawrenceville (11)
Graber, Irving, 500 Tenth av., Belmar (13)
Graddick, Lester W., 22 Sussex av., Morristown (14)
Graeter, F. Albert, 43 Barry pl., Passaic (16)
Graft, Richard S., 44 Green av., Madison (14)
Graham, Archibald F., 42 Park av., Paterson (16)
Graham, Ernest E., 66 Clark av., Somerville (11)
Graham, Richard B., 720 Boston blvd., Sea Girt (13)
Graham, Theodore K., 279 Park av., Paterson (16)
Granelli, Humbert A., 213 Garden st., Hoboken (9)
Granger, James R., 235 Spring st., Trenton (11)
Grant, Francis, 1224 Salem av., Hillside (7)
Grant, Raymond J., 117 S. Main st., Wharton (14)
Grant, Russell B., 100 Prospect av., Hackensack (2)
Grant, William E., 1370 Morris av., Union (20)
Grant, William F., 309 Roseville av., Newark (7)
Gras, Alfred E., 140 Roseville av., Newark (7)
Grasso, Anthony P., Army (7)
Gray, Charles M., 6th & Grape sts., Vineland (6)
Gray, John W., 142 Clinton av., Newark (7)
Greco, Lionel A., Bonnie Burn Sana., Scotch P. (20)
Green, David W., 69 Market st., Salem (17)
Green, Henry, 89 Lincoln Park, Newark (7)
Green, Martin, 2643 Pacific av., Atlantic City (1)
Green, Thomas J., New Egypt (15)
Greenberg, George A., 195 W. High st., Somerv'e (18)
Greenberg, Jacob L., 189 16th av., Newark (7)
Greenberg, Max, 29 W. Henry st., Linden (20)
Greenberg, Philip, 1919 Boulevard, Jersey City (9)
Greenberg, Samuel, 46 Johnson av., Newark (7)
Greenberg, William B., 315 60th st., W. N. Y. (9)
Greene, Albert D., 915 Palisade av., Union City (9)
Greene, Edwin C., 61 N. Pearl st., Bridgeton (6)
Greene, Richard W., 46 Johnson av., Newark (7)
Greene, Robert F., 1604 Central av., Union City (9)
Greenfield, Arthur W., 50 Anderson st.,Hackens'k(2)
Greenfield, Bernard H., 691 Clinton av., Newark (7)
Greenfield, Herbert, 31 Lincoln Park, Newark (7)
Greenfield, Leonard S., 691 Clinton av., Newark (7)
Greenfield, Sylvan J., 32 S. Munn av., E. Orange (7)
Greenfield, William J., 50 Anderson st.,Hackens'k(2)
Greengrass, Jacob J., 146 Broadway, Paterson (16)
Greenwald, Eugene, 100 Hollywood av., Hillside (7)
Greenwald, Theodore L., 44 Maple av., Morrist'n(7)
Greenwell, Albert W., 6 S. Brookw'd dr.,Montcl'r(16)
Greenwood, Samuel B., 190 Clinton av., Newark (7)
Greenwood, William R., Rensselaer, Indiana (12)
Greer, Melvin A., 190 Washington st., Bloomf'd (7)
Gregory, Marie F., 50 Green Village rd., Madison(14)
Gregory, Mildred G., 64 N. Ninth st., Newark (7)
Greifinger, Marcus H., 31 Lincoln Park, Newark(7)
Greifinger, William, 22 Vassar av., Newark (7)
Grenhart, George W., 714 Market st., Camden (4)
Gribbin, James A., 836 W. State st., Trenton (11)
Gricco, Anthony L., 306 S. East av., Vineland (6)
Grieco, Emil H., 19 W. 22nd st., Bayonne (9)
Grier, Robt. M., 50 E. Washington av., Pleas'tv'e(1)
Griesemer, Laurence C., 515 Locust st., Roselle (20)
Griesemer, Z. Lawrence,1145 E.Jersey st.,Eliz'b'h(20)
Griffey, William C., 1049 Haddon av., Collingsw'd(4)
Griffin, Guy B., 208 S. Centre st., Orange (7)
Griffin, Joseph P., 79 Third st., Carneys Point (17)
Griffith, Roy, 909 Broad st., Newark (7)
Grimes, Robert R., 134 Bergen av., Ridgefield P. (2)
Griscom, I. Norwood, 204 Church st., Boonton (14)
Griscom, Lee E., 604 Broadway, Camden (4)
Griswold, Merton L., Jr., 947 Park av., Plainfield(20)
Groff, Parker A., 159 Wash'gton av., Little Ferry(2)
Gross, Irving, 16 Grove av., Verona (7)
Gross, Max, 7401 Atlantic av., Margate City (1)
Gross, Robert J., 202 Pavonia av., Jersey City (2)
Grossbard, Paul, 211 Lexington av., Passaic (16)
Grossman, Harold W., 2553 Boulevard, Jer. City (9)
Grossman, Morris, 921 Bergen av., Jersey City (9)
Grossman, Rubin, 377 Avenue C, Bayonne (9)
Grossman, Walter, 77 Livingston av., N.Br'sw'k(12)
Gruber, William L., 680 Clinton av., Newark (7)
Grubin, Charles J., 1410 Maple av., Hillside (7)
Grubin, Harold, 690 Clinton av., Newark (7)
Grubowski, Joseph N., 477 Jersey av., Jer. City (9)
Grueninger, Edward F., 411 Cedar lane, Teaneck (2)
Gruhler, Jean A., 1616 Pacific av., Atlantic City (1)
Grundorfer, Joseph, 201 Lyons av., Newark (7)
Guarraia, Joseph, 285 Van Winkle av., Hawth'ne(16)
Guglielmelli, Angelo D., 449 Hamilt'n av.,Tr'nt'n(11)
Guidi, Guido M., 212 Christine st., Elizabeth (20)
Guidice, Vincent W., Harrison av., Waldwick (2)
Guion, Edward, 1219 S. Main st., Pleasantville (1)
Gulick, James B., 363 Carteret pl., Orange (7)
Gulford, Edward G., 21 Trinity pl., Montclair (7)
Gurian, Sydney H., 262 Seymour av., Newark (7)
Gurland, Benjamin B., 146 W. 37th st., Bayonne (9)
Gurley, Katharine A., 2671 Boulevard, Jer. City (9)
Gurnee, Quinby D., 168 Diamond Br.av.,Hawth'n(16)
Gurshman, Sol., 280 Amboy av., Metuchen (12)
Gutowski, Joseph M., 433 Brace av., P. Amboy (12)
Gutowski, Walter T., 104 Grove ter., Irvington (7)

ASSOCIATE MEMBERS

Gadek, Raymond J., 27 Burchard st., Fords (12)
Gilmour, Thomas J., Jr., 19 Maple av.,Keansburg(13)
Gleason, James F., 5407 Atlantic av., Ventnor (1)
Goldman, Louis C., 6 N. Austin av., Ventnor (1)
Goodman, Harry P., 101 S. Indiana av., Atl. City (1)
Goodman, Rowland D., II, 265 S.Harris'n st.,E.Or.(7)
Greeley, David McL., 245 Nassau st., Princeton (11)
Grundfest, Jack, 659 Kearny av., Arlington (7)
Grundfest, Philip, 53 Kearny av., Kearny (7)

H

ACTIVE MEMBERS

Hackett, Daniel C., 132 S. Euclid av., Westfield (20)
Hadley, C. Frazer, 210 W. Maple av., Merch'tv'e(4)
Hadley, C. Frazer, Jr., 21 Haddon av., Westmont (4)
Hafetz, M. Morris, 114 Centre st., Trenton (11)
Hager, George W.,Jr.,Camden Co. Hosp.,Lakeland(4)
Haggerty, D. Leo, 227 N. Warren st., Trenton (11)
Haggerty, Francis F., 724 Hudson st., Hoboken (9)
Hagman, Frank E., Army (7)
Hagovsky, Albert J., 301 Hackensack st., Carlst't(2)
Hahn, Katherine B., 372 Thornden st., S. Orange (7)
Hahn, William H., 198 Clinton av., Newark (7)
Haines, Emerson S., 614 Winderm're av.,Asb'yP.(13)
Haines, Keith E., 300 Broadway, Camden (4)
Haines, Mabel C. S., 600 Wt. Horse Pk., Audubon (4)
Halbeisen, William A., 511 Cooper st., Camden (4)
Halbstein, Bernard M., 138 Bath av., L. Branch (13)
Haldeman, Robert E., 34 Garden st., Mt. Holly (3)
Haley, Paul W., 719 Sanford av., Newark (7)
Hall, Perry O., 35 Bentley av., Jersey City (9)
Hall, Ralph A., 547 E. Broad st., Westfield (20)
Hall, Winthrop H., 400 Elm st., Westfield (20)
Haller, Olga, 182 Roseville av., Newark (7)
Halligan, Earl J., 254 Montgomery st., Jersey C. (9)
Hallinger, Earl S., 517 Cooper st., Camden (4)
Hallock, Wilton J., 650 Springfield av., Summit (20)
Halnan, John J., Jr., 631 Madison av., Paterson (16)
Halpern, Herman, 143 Engle st., Englewood (2)
Halpern, Samuel, 7405 Ventnor av., Margate C. (1)
Halprin, Harry, 145 Union st., Montclair (7)
Halsey, Levi W., 61 Church st., Montclair (7)
Hamburg, Meyer M., 60 N. Sixth av., HighlandP.(12)
Hamburger, Werner, 1616 Pacific av., Atlantic C.(1)
Hamilton, Lloyd A., 46 York st., Lambertville (10)
Hamilton, Robert G., 92 Main st., Orange (7)
Hamley, John J., 153 Second st., Elizabeth (20)
Hammell, Frank M., 137 S. Main st., Allentown (11)
Hammett, Lee J., 760 N. 27th st., Camden (4)
Hampton, George R., N.J.State Hosp.,Greyst'n P.(14)
Hanan, James T., 11 The Crescent, Montclair (7)
Hancock, Michael Q.,Third av.,& River rd.,Belm'r(13)
Hand, Frederick G., 119 Irvington av., S. Orange(7)
Handler, Harry, 305 York st., Jersey City (9)
Haney, John J., 850 Hamilton av., Trenton (11)
Hanfling, Seymour L., 115 S. Munn av., E. Or. (7)
Hanrahan, James, 678 N. Broad st., Elizabeth (20)
Hansen, Harold T., 153 Irvington av., S. Orange(7)
Hansen, Harry, 1006 Park av., Plainfield (20)
Hansen, Kurt M., 31 East av., Woodstown (17)
Hanson, Alfred S., 33 Cuthbert Blvd., Westmont(4)
Hanson, Carl G., 38 Springfield av., Cranford (20)
Hantman, Harold, 196 Roseville av., Newark (7)
Harbeson, James P., III, 460 Loucraft rd.,Had'nf'd(4)
Harden, Albert S., 510 W. Market st., Newark (7)
Harden, Albert S., Jr., 551 Ridgew'd rd., Maplew'd(7)
Hardy, John W., 53 Main st., Farmingdale (13)
Harley, Halvor L., 101 S. Indiana av., Atl. City (1)
Harley, Robison D., 101 S. Indiana av., Atlantic C.(1)
Harman, J. Reginald, 824 W. State st., Trenton (11)
Harps, James A., 72 Center st., Clinton (10)
Harreys, Charles W., 153 Prospect st., Ridgew'd(16)
Harrington, J. Henry, 40 E. Main st.,Rockaway(14)
Harris, Jonathan L., 1060 Broad st., Newark (7)
Harris, Leonard, 89 Lincoln Park, Newark (7)
Harris, Maurice N., 205 Irvin av., Bridgeton (6)
Harris, Morris, 102 Broad st., Bloomfield (7)
Harris, Sidney, 301 W. Fifth av., Roselle (20)
Harris, William G., Main st., Mullica Hill (8)
Harris, William O., 32 N. New Jer. av., Atl. City (1)
Harryman, William K., 271 Union st., Hackens'k(2)
Harter, Louis F., 174 Bowers st., Jersey City (9)
Hartman, Winfield L., Jr., 7 Fielding ct., S. Or.(7)
Hartmann, Edmund M., 1414 Chetw'd av.,Plainf'd(18)
Hartwell, H. Ameroy, 777 Boulevard,E.,Weeh'ken(9)
Harvey, John W., 818 Avenue C, Bayonne (9)
Harvey, Robert K., 711 Kearny av., Arlington (7)
Harvey, Thomas W., 59 Main st., Orange (7)
Harz, William V., 880 Avenue C, Bayonne (9)
Haschec, Walter, 690 S. 19th st., Newark (7)
Haskin, Aaron H., 22 Goldsmith av., Newark (7)
Hasking, Arthur P., 318 Montgomery st., Jer.City(9)
Hasney, Frederick A., 118 Main st., West Orange(7)
Hatch, Harold S., Shonghum Mt. Sana.,Morrist'n(14)
Hatem, Elias J., 1046 Main st., Paterson (16)
Hathaway, George, Jr., 149 Prospect st., Passaic(16)
Hauber, Eugene A., 198 Wash'gton rd., Sayrev'e(12)
Hauck, Francis A., 4614 Landis av., Sea Isle City(5)
Hauck, Lydia R. B., 644 Stuyvesant av., Irv'gton(7)
Hauck, William H., 644 Stuyvesant av., Irv'gton(7)
Hauptman, Harry, 88 Sherman pl., Jersey City (9)
Hausman, Samuel W., 50 W. Front st., Red Bank(13)
Haut, Edward M., 21 Main st., Farmingdale (13)
Haut, Gail W., 32 General Wayne Vil., Madison (14)
Haven, Samuel C., 14 Elm st., Morristown (14)
Hawes, Vernon L., 63 Church st., Ramsey (2)
Hawkes, E. Zeh, 161 Roseville av., Newark (7)
Hawkes, Stuart Z., 161 Roseville av., Newark (7)
Hawkins, Edw.R., 336 Someroulas st.,Baton R.,L.(20)
Hayden, Walter G., 504 Main st., Toms River (15)
Hayes, Gerald W., 86 Hawthorne av., E. Orange(7)
Hayman, Irving R., 681 Broadway, Paterson (16)
Hays, Roy G., 527 Haddon av., Collingswood (4)
Haywood, Henry, 49 Paterson st., N. Brunsw'k(12)
Heatley, William, 29 Drummond pl., Red Bank(13)
Hebble, Howard M., 320 Chester av., Moorestown(3)
Hegeman, Runkle F., 161 W. High st., Somerv'e(18)
Heilbrunn, Julius, 2540 Boulevard, Jersey City (9)
Heineken, Theodore S., 17 Park pl., Bloomfield (7)
Heisen, Aaron J., Imlaystown (13)
Hekimian, Jacob H., 2314 Palisade av.,Weeh'wk'n(9)
Helff, Joseph R., 1367 Teaneck rd., W. Englewood(2)
Heller, Abraham R., 494 Belgrove dr., Arlington (7)
Heller, George, 460 Engle st., Englewood (2)
Heller, Nathan B., 31 Lincoln Park, Newark (7)
Hely, Charles J., Jr., 564 Summit av., Westfield (20)
Heminway, Norman L.,106 Short Hills av.,Sh't H.(20)
Hemphill, Everett H., 274 Kings Hwy.,E.,Had'nf'd(4)
Hendlich, Milton G., 24 Johnson av., Newark (7)

Hendrickson, Harold W., Edgewood av.,Cedarville(6)
Henle, Carye-Belle, 202 Clinton av., Newark (7)
Hennig, Paul F., 688 Stuyvesant av., Irvington (7)
Henriksen, J. Bruce, 422 River av., P. Pleasant(15)
Henry, Frank C., Jr., 214 Smith st.,Perth Amboy(12)
Henry, George, 33 Mine st., Flemington (10)
Henry, Norman, 643 Wood st., Vineland (6)
Henshaw, George R., 228 Midland av., Montclair(7)
Hensle, Otto S., 210 Main st., Hackensack (2)
Herbener, Eugene G., 423 Third st., Lakewood (15)
Herman, Isadore, 119 Quincy st., Passaic (16)
Hermann, John H., 197 S. Centre st., Orange (7)
Hermann, John H., Jr., 197 S. Centre st., Orange (7)
Herndon, Lewis S., 144 Harrison st., East Orange(7)
Herradora, Juan R., 2750 Boulevard, Jersey City (9)
Herrington, Lee R., 643 E. Broad st., Westfield(20)
Herrman, William G., 501 Grand av.,AsburyPark(13)
Hersh, David H., 2 Custer av., Newark (7)
Hersohn, William W., 20 S. Elberon av.,AtlanticC.(1)
Hertzberg, Irving, 586 Kearny av., Kearny (7)
Hess, George A., Titusville (11)
Hess, L. Elmore, 19 E. Bolton av., Absecon (1)
Hesseltine, Clair E., 305 Main st., South Amboy(12)
Hessert, Edmund C., 417 Cooper st., Camden (4)
Hewson, George F., 21 Roseville av., Newark (7)
Heyman, Arthur, 89 Lincoln Park, Newark (7)
Heymann, Ernest F., 345 Broad st., Red Bank (13)
Hicks, Alfred M., 149 Park st., Montclair (7)
Hiden, Joseph C., 199 Nassau st., Princeton (11)
Higgins, Eugene V., 1180 Raymond blvd.,Newark(7)
Higgins, John T., 145 Highland av., Jersey City (9)
Higgins, Thomas A., 2616 Boulevard, Jersey City (9)
Hiler,, Stuart A., 62 Rockaway av., Rockaway (14)
Hilker, George F., 258 Maple st., Perth Amboy (12)
Hill, Arthur G., 324 Grove st., Montclair (7)
Hill, Clarence T., 116 E. Hazelwood av., Rahway(20)
Hill, Dean F., Sussex (19)
Hill, James O., 84 Barclay st., Newark (7)
Hill, Robert H., 227 Roseville av., Newark (7)
Hillel, Joseph, 425 77th st., North Bergen (9)
Hilliard, William T., 105 Market st., Salem (17)
Hillman, Ernest C., Jr., 300 Broadway, Newark (7)
Hillmann, Frederick C., 64 Hamilton st.,Paterson(16)
Hillsman, R. Bryan, 681 Queen Anne rd., Teaneck(2)
Hilton, Clarence O., 556 N. Seventh st., Newark (7)
Hinckley, Livingston S., 182 Clinton av., Newark(7)
Hindle, F. Lawton, 145 Maple av., Red Bank (13)
Hipple, Percy L., 118 E. Fifth av., Roselle (20)
Hird, Emerson F., 118 E. Maple av., Bd. Brook (18)
Hirsch, Albert, 1554 Irving st., Rahway (20)
Hirsch, Arthur, 811 DeHirsch av., Woodbine (5)
Hirsch, John J., 191 Wallington av., Wallington (2)
Hirsch, Lucien, 160 E. Seventh st., Plainfield (20)
Hirsch, Solomon, 2553 Boulevard, Jersey City (9)
Hirsch, Theodore, 842 S. 13th st., Newark (7)
Hirschfield, Bernard A., 375 W. State st.,Trenton(11)
Hirshorn, Arthur, 539 Monmouth st., Gloucester (4)
Hitschmann, Otto B., 97 Lincoln Park, Newark (7)
Hitzemann, Louis A., 35 Pangborn pl., Hackensk(2)
Hnat, Frederick, 565 Newark av., Elizabeth (20)
Hobart, Richard T., 454 Park st., Up. Montclair (7)
Hoch, Samuel M., 240 Hillside rd., Elizabeth (20)
Hochheimer, Arthur, 417 Somerset st., Bd.Brook(18)
Hochman, Alex, 260 Hamilton av., Paterson (16)
Hodas, Sidney M., 268 Broad st., Red Bank (13)
Hofbauer, Ernest, 695 Parkway av., Trenton (11)
Hofer, Clarence J. M., 463 Main st., Metuchen (12)
Hoffman, Charles A., 302 E. Seventh st., Plainf'd(20)
Hoffman, Charles W., 226 David st., S. Amboy (12)
Hoffman, David B., 31 Lincoln Park, Newark (7)
Hoffman, Florentine M., 91 Bayard st.,N.Br'sw'k(12)
Hoffman, Harry, 805 Park av., Plainfield (20)
Hoffman, Harry S., 3302 Pacific av., Atlantic City(1)
Hogan, Marshall D., 311 W. Main st., Boonton (14)
Holder, Lester, 1750 Walker av., Union (7)
Holderith, Albert E., 15 Virginia av., Livingston (7)
Holland, Moses H., 2412 Palisade av., Weehawken(9)
Holland, Reuben J., 1026 Chandler av., Linden (20)
Holler, Henry G., 234 Montclair av., Newark (7)
Hollingsworth, H. Hale, 86 First st., Clifton (16)
Hollinshed, Beulah S., 600 Benson st., Camden (4)
Hollinshed, Ralph K., 351 Broadway, Westville (8)
Hollywood, James L., 219 Danforth av., Jer. City(9)
Holman, Francis W., 123 Broad st., Keyport (13)
Holmes, George J., 17 Elizabeth av., Newark (7)
Holmes, Grace A., 1077 E. Jersey st., Elizabeth (20)
Holmes, H. David, 15 N. Indiana av.,Atlantic City(1)
Holmes, Thomas J. E., 151 Fair st., Paterson (16)
Holoman, M. Browne, 1 N. Haverford av.,Marg'e(1)
Holster, Stephen G., 951 Madison av., Paterson (16)
Holt, Evelyn, 261 Springfield av., Summit (20)
Holt, Herman H., 576 Broadway, Paterson (16)
Holters, Otto R., 1002 Emory st., Asbury Park (13)
Holtz, Harry M., 299 Clinton av., Newark (7)
Holtzman, Michael, 734 N. Broad st., Elizabeth(20)
Hoops, Harold J., 25 Woodland Pk. dr., Tenafly (2)
Hooton, Thomas C., 31 Trinity pl., Montclair (7)
Hopper, Guy R., 147 Elmer st., Westfield (20)
Hopper, John B., E. Main st., Mendham (14)
Hopping, John S., River rd., Hanover (14)
Hopping, Richard A., 15 Washington st., Newark(7)
Horhovitz, George I., 324 S. Broad st., Trenton (11)
Horland, Aaron H., 37 Chancellor av., Newark (7)
Horn, Harry, 622 Stuyvesant av., Irvington (7)
Horn, Max, 850 S. 11th st., Newark (7)
Hornick, Emil E., 6 Altamont ct., Morristown (14)
Hornstine, Harry H., 4004 Pacific av., Wildwood (5)
Horoschak, Anne, 974 Park av., Plainfield (20)
Horowitz, Alexander S., 4614 Boulevard, Union C.(9)
Horowitz, Herman J., 872 Broad av., Morsemere (2)
Horowitz, Leo, 3644 Boulevard, Jersey City (9)
Horre, George W. H., 203 W. Jersey st.,Elizabeth(20)
Hosp, Paul H., 842 S. 12th st., Newark (7)
Howard, J. Edgar, 67 Kings Hwy.,W.,Had'nf'd (4)
Howard, James W., 199 Lorraine av., U.Montcl'r(7)
Howell, E. Gaylord, 120 New st., N. Brunswick (12)
Howell, Thomas W., Army (7)
Howeth, John L., 14 Duncan av., Jersey City (9)
Howley, Barth, Jr., 67 Livingston av., N.Br'sw'k(12)
Hubach, Maximilian F.,Jr.,307M'tgom'y st.,Bl'mf'd(7)
Hubbard, Robert Y., Fernwood Lodge, Hewitt (7)
Huber, William H., 587 Prospect st., Maplewood (7)
Huberman, John, 853 S. 12th st., Newark (7)
Huberman, Victor, 853 S. 12th st., Newark (7)
Hubert, Antonio O., 131 E. Main st., Rockaway (14)
Hudson, Howard S., 824 Wesley av., Ocean City (1)
Hughes, A. Joseph, 3rd & Cooper sts., Camden (4)
Hughes, Frank J., 429 Cooper st., Camden (4)
Hughes, Harold F., Ocean st.& Col'bia av.,Cape M.(5)
Hughes, J. Vernon, P. O. Box 454, Passaic (16)
Hughes, James W., Jr., 1903 Pacific av., Atl. C. (1)
Hughes, Joseph F., 16 N. Broad st., Woodbury (8)
Hughes, Lee W., 965 Broad st., Newark (7)
Hughes, Samuel B., 246 E. Pine av., Wildwood (5)
Hughes, Thomas E., 223 Cooper st., Camden (4)
Hulett, Albert G., 20 Hawthorne av., E. Orange (7)
Hull, Donald B., 88 W. Ridgewood av., Ridgewood(2)
Humbert, Joseph C., Jr., Stewartsville (21)
Hummel, Ernest G., 414 Cooper st., Camden (4)
Hummel, Frederick W., 606 F st., Belmar (13)
Hummel, Lee C., 109 W. Broadway, Salem (17)
Humphrey, Hubert G., 430 Downer st., Westf'd(20)
Humphries, Robert E., 637 Central av., E. Orange(7)
Hunt, Melvin M., 140 Jackson st., South River (12)
Hunt, Thomas F., 528 Monroe av., Elizabeth (20)
Hunter, Floyd D., 3620 Nott'gh'm way,Ham't'n S.(11)
Hunziker, George P., 435 Warw'k av.,W.Englew'd(2)
Hurff, J. Wallace, 671 Broad st., Newark (7)
Hurtado, Edward, 763 Audrey dr., Rahway (12)
Husted, Gerald W., 306 Eighth av., Haddon Hts.(4)

Husted, Samuel H., Main rd., Neshanic (18)
Hutcheson, Robert B., 215 Delaware st.,Woodb'ry(8)
Hutchinson, A. Dunbar, 913 W. State st.,Trenton(11)
Hutchinson, George F., 55 Mercer st.,Hamilt'n S.(11)
Hutner, Cyril I., 134 Grove av., Woodbridge (12)
Hutton, Frederick T., 717 Watchung av.,Plainf'd(20)
Hyde, Robert T., Navy (7)
Hyer, Godfrey S., 199 W. High st., Somerville (18)
Hyland, Michael, 197 Kearny av., Kearny (7)
Hyman, Charles, 2807 Pacific av., Atlantic City (1)
Hymes, Ben, 66 Baldwin av., Newark (7)

ASSOCIATE MEMBERS

Halsted, Harry C., 77 Hawthorne av., Nutley (7)
Hardin, Edmund B., 13 Summit av., Trenton (11)
Harms, Charles R., 363 Park st., Montclair (7)
Haslam, Herbert M., Peddie School, Hightstown(11)
Hoffman, George A., 234 Fort Lee rd., Leonia (2)
Holland, John W., 45 Haverford av., Margate (1)
Hurewitz, Benjamin, 0-95 Midland av.,Fair L'wn(16)
Hutchinson, Harry F., 209 Passaic av., Spring L.(13)

I

ACTIVE MEMBERS

Ianacone, John A., 310 Fifth av., Paterson (16)
Iannone, Angelo B., 659 Park av., East Orange (7)
Iatesta, Matthew, 60 Northfield av., W. Orange (7)
Idelcowitz, Marie, 123 Main st., South River (12)
Ill, Edmund W., 477 Mt. Prospect av., Newark (7)
Ill, Herbert M., 42 Woodland av., Glen Ridge (7)
Imbleau, Joseph E. L., 2106 Morris av.,Unionv'le(20)
Imhoff, John G., 913 Summit av., Jersey City (9)
Infield, Gerald L., 1319 Shore rd., Northfield (1)
Inge, Hutchins F., 205 S. Orange av., Newark (7)
Ingling, Harry W., 51 W. Main st., Freehold (13)
Insabella, John, 317 S. Orange av., Newark (7)
Introcaso, Dominick A., 45 Crescent av., Jer. City(9)
Iraggi, James V., 53 Passaic av., Passaic (16)
Irmisch, George W., 375 W. State st., Trenton (11)
Ironside, Paul A., 144 North dr., Haddonfield (4)
Irwin, Francis T., 51 Forest av., Caldwell (7)
Irwin. James R., 330 Washington av., Belleville (7)
Irwin, John H., 242 Engle st., Englewood (2)
Irwin, Robert C., 541 Page av., Lyndhurst (2)
Isaac, Benoit C., 83 Central av., Orange (7)
Isen, Paul J., 600 Third av., Bradley Beach (13)
Israel, Joseph, 252 Washington av., Belleville (7)
Israeloff, Howard H., 1038 Clinton av., Irvington (7)
Ivey, Evelyn P., 3 Community pl., Morristown (14)
Ivory, Harry S., Richmond av., P. Pleasant (15)
Izenberg, David, 555 E. 29th st., Paterson (16)

ASSOCIATE MEMBERS

Insolera, John A., 388 Park av., Paterson (16)
Ittleman, William S.,307 N.Wash'gt'n av..Dunel'n(12)

J

ACTIVE MEMBERS

Jack, H. Wesley, 538 Cooper st., Camden (4)
Jacks, Oscar, 476 Mercer st., Jersey City (9)
Jackson, Charles H., 1250 Park blvd., Camden (4)
Jackson, George H., 100 Elmwood av., Union (7)
Jacobitti, Edmund E., 491 Maywood av., Mayw'd (2)
Jacobs, Alan L., 1243 Stuyvesant av., Union (20)
Jacobs, Benjamin, 1612 Clinton pl., Hillside (7)
Jacobs, William, 1030 Stuyvesant av., Irvington (7)
Jacobson, Benjamin D.,187Liv'gst'n av.,N.Br'sw'k(12)
Jacobson, J. Joseph, 1616 Pacific av., Atl. City (1)
Jacobson, Murray B., 137 Market st., P. Amboy (12)
Jaeckle, Charles E., 136 Evergreen pl., E. Orange(7)
Jaffe, Benjamin, 566 Bergen av., Jersey City (9)
Jaffe, Gorman, 626 Sixth st., Lakewood (15)
Jaffe, Hyman, 149 Broadway, Passaic (16)
Jaffin, Abraham E., 41 Emory st., Jersey City (9)
Jahn, Albert G., 657 Main av., Passaic (16)
Jaksch, Maria, 137 Arlington av., Jersey City (9)
James, Bart M., 15 Washington st., Newark (7)
James, J. Thomas, 45 Vandeventer av., Princeton(11)
Jamison, William F., 501 Grand av., Asbury Pk.(13)
Jani, Frank F., 297 Lexington av., Passaic (16)
Jaques, J. Eugenia, 74 Waverly st., Jersey City (9)
Jarecki, Max M., 905 Bergh st., Asbury Park (13)
Jarvis, Daniel G., 31 Lincoln Park, Newark (7)
Jaslow, Seymour P., Godwin av., Wyckoff (2)
Jaso, James V., 710 Varsity rd., South Orange (7)
Jaspan, Samuel C., 820 Division st., Trenton (11)
Jedel, Meyer, 125 Fourth st., Newark (7)
Jenkins, Alvah R., 40 Armory st., Englewood (2)
Jenkins, Arthur M., 701 Harrison st., Frencht'n(10)
Jenkins, R. Jewett, 683 High st., Newark (7)
Jennings, Robert E., 117 Wash'gton st.,E. Orange(7)
Jensen, Grover H., 130 Jewett av., Jersey City (9)
Jentz, John H., 67 Sherman pl., Jersey City (9)
Joelson, Dora, 485 Park av., Paterson (16)
Joelson, Morris S., 577 Broadway, Paterson (16)
Joffe, Philip M., 556 E. 28th st., Paterson (16)
Joffe, Sidney H., 556 E. 28th st., Paterson (16)
Johnsen, Sigurd W., 149 Prospect st., Passaic (16)
Johnson, Archie W., 169 Claremont av., Jersey C.(9)
Johnson, G. Leonard, 390 Booth av., Englewood (2)
Johnson, George F., Branchville (19)
Johnson, Harold F., 734 Park av., Plainfield (20)
Johnson, Herbert F., 429 Cooper st., Camden (4)
Johnson, John F., 926 W. State st., Trenton (11)
Johnson, Robert A., 68 Roseville av., Newark (7)
Johnson, V. Earl, 101 S. Indiana av., Atlantic City(1)
Johnson, Winton H., 210 Main st., Hackensack (2)
Jonas, August, 328 E. Broadway, Salem (17)
Jones, Clement M., 454 Boulevard, Bayonne (9)
Jones, Helen E., 601 Grand av., Asbury Park (13)
Jones, Herbert E., 6 Hillside rd., Elizabeth (20)
Jones, J. Morgan, Valley rd., R.F.D., Oakland (9)

Jones, John C., 805 Princeton av., Camden (4)
Jones, Lewis H., 139 E. Grant av., Roselle Park (20)
Jones, Rhys, 36 Hawthorne pl., Montclair (7)
Jones, William F., 15 N. Bridge st., Somerville (18)
Jonitz, Robert, 153 S. Grove st., East Orange (7)
Jordan, Joseph C., 238 E. Main st., Manasquan (13)
Jordan, Walter L., 145 Engle st., Englewood (2)
Joseph, Benjamin M., 2771 Boulevard, Jersey City(9)
Joseph, Morris, 271 Lexington av., Passaic (16)
Judd, Joseph, Jr., 300 Westfield av., Elizabeth (20)
Judge, John F., 33 Hazelwood av., Newark (7)
Judge, Thomas V., Jr., Mem. Hosp., Syracuse,N.Y.(7)
Judson, G. Vernon, Jr., 722 Redman av., Had'nf'd(4)
Judy, Kenneth H., 2741 Boulevard, Jersey City (9)
Jukofsky, Isidore D., 335 Main st., Ridgef'd Pk. (2)
Jurewicz, Stanley T., 290 17th av., Paterson (16)
Just, Francis, 564 High st., Newark (7)
Justin, Arthur W., 41 Fulton st., Weehawken (9)

ASSOCIATE MEMBERS

Jasionowski, Edward, 121 Main st., Sayreville (12)
Jones, Kenneth, 175 Smith st., Perth Amboy (12)

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ACTIVE MEMBERS

Kaderabek, Erwin J., 144 Harrison st., E. Orange(7)
Kadisch, Ernst L., 120 Second av., Westwood (2)
Kahn, Leo, 32 States av., Atlantic City (1)
Kahrs, Grace M., 185 Broadway, Newark (7)
Kahrs-Dreyfors, Madeline, N.J.State H.,Marlb'ro(13)
Kaighn, Charles B., 101 S. Indiana av., Atl. City (1)
Kain, Thomas M., 403 Cooper st., Camden (4)
Kainer, Herbert, 4411 Boulevard, North Bergen (9)
Kakascik, Emil J., 206 Palisade av., Garfield (2)
Kalb, S. William, 416 Clinton pl., Newark (7)
Kaletkowski, Marion F., 4 Englewood rd.,Clifton(16)
Kalter, George E., 640 Prospect st., Maplewood (7)
Kaman, Samuel L., 1616 Pacific av., Atl. City (1)
Kandle, Roseoe P., 20 Edgemere av., Trenton (11)
Kandra, Paul H., 153 Mountain av., Westfield (20)
Kanengiser, Clifford H., 26 Gifford av., Jer. City (9)
Kaney, Emil M., 74 Clinton av., Newark (7)
Kant, Emanuel R., 240 High st., Perth Amboy (12)
Kaplan, Harry, 186 W. State st., Trenton (11)
Kaplan, Henry L., 17 Weequahic av., Newark (7)
Kaplan, Herman B., 324 44th st., Union City (9)
Kaplan, Isaac, 901 Garrison av., Teaneck (2)
Kaplan, S. Bernard, 31 Lincoln Park, Newark (7)
Kaplan, Samuel D., 615 N. Broad st., Elizabeth (20)
Kapp, Carl G., 440 Westminster av., Elizabeth(20)
Karel, Jack R., 407 Jersey av., Elizabeth (20)
Karnay, Francis, 348 Pine av., Garwood (20)
Karshmer, Ernest E., 420 Wood av., N., Linden (20)
Karshmer, Nathan, 92 Carroll pl., N.Br'nsw'k (12)
Kassel, Mortimer H., 34 Elmwood ct., E.Pat'rs'n(16)
Kassow, Philip B., North Boulevard, Alpha (21)
Kastler, Franz, 54 Ames av., Rutherford (2)
Katz, Harry, 494 Park av., Paterson (16)
Katz, Jacob D., 38 Bentley av., Jersey City (9)
Katz, Sidney, 8116 Boulevard, North Bergen (9)
Katz, Theodore, 540 S. Wood av., Linden (20)
Katzenbach, C. Buckman, 415W.State st.,Trent n(11)
Katzin, Eugene M., 50 Baldwin av., Newark (7)
Kauder, Warren G., 299 Clinton av., Newark (7)
Kauffmann, Louis J., 228 N. Second st., Milly'e (6)
Kaufman, Edgar M., 2225 River av., Camden (4)
Kaufman, Jerome G., 299 Clinton av., Newark (7)
Kavanaugh, Daniel E., 566 Mt. Prosp't av.,New'k(7)
Kawalek, Roman, 46 S. Burnett st., East Orange (7)
Kay, Albert E., 5 W. Chestnut av., Merchantv'e (4)
Kay, Clarence R., Main st., Peapack (18)
Kaycoff, Aaron J., 1063 North av., Elizabeth (20)
Kazmann, Harold A., 601 Grand av., Asbury Pk.(13)
Kearney, Edward P. J.,83 S.Fullert'n av.,Montcl'r(7)
Kearney, John F., 238 Hilton av., Maplewood (7)
Keating, Charles A., 177 Ellison st., Paterson (16)
Keating, Joseph M., 657 Main av., Passaic (16)
Keats, Sidney, 31 Lincoln Park, Newark (7)
Keeney, Cadwell B., 137 Summit av., Summit (20)
Kehler, James G., Jr., Underwood Hosp.,Woodb'y(8)
Keil, Sigmund S., 1118 St. George av.,E., Linden(20)
Keim, William F., Jr., 15 Washington st., New'k(7)
Keir, Floyd E., 308 Engle st., Englewood (2)
Keith, Theodore R., 656 Bloomfield av., Nutley (7)
Kelemen, Nicholas M., 315 Central av., E. New'k(7)
Keller, Earl B., Jr., 604 Wt. Horse Pk., Oaklyn (4)
Keller, Michael L., 673 E. 27th st., Paterson (16)
Kelley, Charles B. P., 336 Engle st., Tenafly (2)
Kelley, Ray H., 72 Wyekoff av., Midland Park (16)
Kelly, Bernard S., 1954 Boulevard, Jersey City (9)
Kelly, Frank, 11 N. Johnson Blvd., Gloucester (4)
Kelly, J. Paul, 30 Ridgedale av., Morristown (14)
Kemeny, George, 39 Third st., Elizabeth (20)
Kemeny, Imre, 48 Pulaski av., Carteret (12)
Kemp, Norval F., 87 Sherman pl., Jersey City (9)
Kempe, George, 963 Caldwell av., Union (7)
Kennedy, A. Andrew, 121 Hadley av., Clifton (16)
Kennedy, Eugene T., 413Wanaque av.,Pompt'nL.(16)
Kennedy, George R., 517 Cooper st., Camden (4)
Kennedy, John N., 831 Madison av., Plainfield (20)
Kennedy, Paul A., 147 Tenafly rd., Englewood (2)
Kennedy, Wm. M., 4548 Forest Pk. av., St.Louis,M.(7)
Kenney, John A., 39 Madison av., Montclair (7)
Kenny, James, 18 Fairway dr., West Orange (7)
Kent, Donald F., 396 Main st., Chatham (14)
Kent, Louis R., 1974 St. Georges av., Rahway (20)
Kerdasha, Richard F., Tuomey Hosp.,Sumter,S.C.(4)
Kern, E. Clarence, 45 Park st., Montclair (7)
Kern, Meyer J., 144 Clinton av., Newark (7)
Kertis, Eugene R., 272 E. Second av., Roselle (20)
Kesselman, Samuel R., 29 Stratford pl., Newark (7)
Kessler, Henry B., 40 Clinton pl., Newark (7)
Kessler, Henry H., 53 Lincoln Park, Newark (7)
Keyser, David, 1518 Baird av., Camden (4)
Keyssar, Alexander, 18 Isabella av., Newark (7)
Kidd, Ruth W., 1199 Morris av., Union (20)
Kiely, Eugene M., 800 Hudson st., Hoboken (9)
Kiessling, Charles E., 763 Broad st., Newark (7)
Kiley, John E., 94 Park st., Montclair (7)
Kim, Gay B., 703 Main st., Paterson (16)
Kimche, Irwin, 37 Rawley pl., Millburn (7)
Kimler, William D., 400 Collings av., Collingsw'd (4)
Kimmel, Charles, 488 Broad st., Bloomfield (7)
Kimmel, M. Leonard, 3342 Boulevard, Jer. City (9)
Kimmel, Seymour S., Oxford (21)
King, Alden P., 400 W. Blackwell st., Dover (14)
Kingma, John G., Goffle Hill rd., Wyckoff (2)
Kinley, John W., 111 Clinton av., Newark (7)
Kinney, Albert G., 609 Clinton av., Had'onf'd (4)

Kinney, Burton O., 41 Lincoln av., Little Falls (16)
Kirkby, Cyril S., 45 Woodland av., Glen Ridge (7)
Kirkman, Leroy G., 176 Roseville av., Newark (7)
Kirkwood, Allan S., 53 Union st., Montclair (7)
Kirschner, Martin I., Vernon (19)
Kissinger, Donald J., 315 Engle st., Tenafly (2)
Klapper, Lester L., 967 Park av., Plainfield (20)
Klarich, Philip, 512 Broadway, Camden (4)
Kleiber, Estelle E., 131 Liv'gston av., N. Br'sw'k(12)
Klein, Andrew J. V., 94 Hawthorne av., E. Orange(7)
Klein, Edward C., Jr., 73 Lincoln Park, Newark (7)
Klein, Edward F., 136 Market st., Perth Amboy (12)
Klein, Julius, 2105 Palisade av., Union City (9)
Klein, Michael, 1540 Spr.Valley dr.,Hunt'gt'n,W.V.(7)
Klein, Milton, 45 E. Blackwell st., Dover (14)
Klein, Solomon, 11 High st., Morristown (14)
Klein, William, 85 Bayard st., New Brunswick (12)
Kleiner, Charlotte A., 330 Crescent av., Leonia (9)
Kleiner, Samuel, 162 Hamilton av., Paterson (16)
Kleinman, Maurice, 101 Clinton av., Newark (7)
Kleinmann, Eberhart H., 560 Broadway,Paterson(16)
Klempner, Paul, 637 Greenwood av., Trenton (11)
Klenk, Joseph P., 328 Belleville av., Bloomfield (7)
Kler, Joseph H., 151 Liv'gston av., N. Br'nsw'k (12)
Kline, George L., 423 Essex av., Bloomfield (7)
Kline, Herman, 2643 Pacific av., Atlantic City (1)
Kline, Joseph J., 733 Hamilton av., Trenton (11)
Kline, Oram R., 514 Cooper st., Camden (4)
Klinger, John S., 1452 Mt. Ephraim av.,Camden(4)
Kloby, John J., 562 Bayway, Elizabeth (20)
Klompus, Irving, 301 E. High st., Bound Brook (18)
Klosk, Emanuel, 324 Radel ter., South Orange (7)
Klosterman, Julius A., 335 River rd., Bogota (2)
Klostermyer, Louis L., Mount'ns'e Hosp.,M'ntcl'r(7)
Klughaupt, Dorothy K., 257 Boulevard, Passaic (16)
Knapp, Richard E., 25 Hudson st., Hackensack (2)
Knauer, Charles H., Jr., 214 W. State st.,Trenton(11)
Knauer, George, 930 Elizabeth av., Elizabeth (20)
Knight, Richard vanD., 129 Summit av., Summit(20)
Knight, William T., 210 Main st., Hackensack (2)
Knowles, George M., 403 Prospect av., Hackens'k(2)
Knowles, James S., 318 N. Second st., Millville (6)
Knox, Charles A., 138 Bergen av., Ridgef'd Pk.(2)
Knox, Harriet L., 390 Union st., Hackensack (2)
Knox, Howard A., New Hampton (10)
Kobes, John J., 138 Kearny av., Kearny (7)
Koch, James, 776 S. 19th st., Newark (7)
Koch, William, 601 Grand av., Asbury Park (13)
Koeck, George P., 305 Roseville av., Newark (7)
Koelsch, Frederick J., 14 Kirkp'tr'k st.,N.Br'sw'k(12)
Koenig, Bertram, 282 Broadway, Paterson (16)
Koenig, Robert E., Sedgwick st., Jamesburg (12)
Koerber, George, 136 Prospect st., Passaic (16)
Kohn, Joseph J., 201 Broad st.,Bank bldg.,Tr'nt'n(11)
Kohn, Leo, 86 Park pl., South Orange (7)
Kohn, Ralph B., Westbr'k Jr. Col., Portl'd,Me.(11)
Kohut, George J., 436 Amboy av., Perth Amboy (12)
Kolb, John M., 1611 Boulevard, North Bergen (9)
Kolbe, Joseph T., 119 S. Second st., Millville (6)
Kolodin, Abraham, 185 Broad st., Bloomfield (7)
Kondor, Joseph S., 978 S. Broad st., Trenton (11)
Konzelman, Henry J., 65 King st., Hillside (20)
Konzelmann, Frank W., 304 S. Shore rd., Absecon(1)
Kook, Sol, 54 Grand pl., Arlington (9)
Kooperstein, Samuel I., 191 Palisade av., Jer.City(9)
Koplin, Nathaniel H., 142 W. State st., Trenton (11)
Koralek, Adolph H., 31 Lincoln Park, Newark (7)
Kornfeld, Werner, 645 Central av., East Orange (7)
Kornfield, Norman B., 52 Livingston av.,Arlingt'n(9)
Kossmann, Walter J., Long Valley (14)
Kosterlitz, Henry H., 640 Stuyvesant av., Irv'gton(7)
Kovaleski, Walter A., 77 Market st., Passaic (16)
Kovin, Abraham, 123 Lexington av., Passaic (16)
Kraemer, Louis B., 74 Baldwin av., Newark (7)
Kraemer, Samuel H., 309 Baldwin av., Jersey City(9)
Krafchik, Louis L., 158 Livingston av.,N.Br'sw'k(12)
Kraissl, Cornelius J., 230 Kinderk'm'k rd.,H'k'ns'k(2)
Kraker, David A., 31 Lincoln Park, Newark (7)
Krakower, Alvin H., 528 E. 29th st., Paterson (16)
Kramer, Bernard M., 254 State st., Perth Amboy(12)
Kramer, Douglas W., 1019 Park av., Plainfield (20)
Kramer, Samuel E., 254 State st., Perth Amboy (12)
Krans, Edward S., 920 Park av., Plainfield (20)
Kratka, William H., 188 N. Pearl st., Bridgeton (6)
Krauss, Fletcher I., 407 Main st., Chatham (14)
Krausz, Emery, 577 S. Main st., Phillipsburg (21)
Kraut, Arthur M., 681 Bergen av., Jersey City (9)
Krechmer, Abraham, 400 Pacific av.,AtlanticCity(1)
Kremer, Leonard, 707 Broadway, Paterson (16)
Kren, Frank, 718 W. State st., Trenton (11)
Kresch, Philip, 86 W. 34th st., Bayonne (9)
Kreutz, Paul J., 363 Union av., Elizabeth (20)
Krichbaum, Carroll E., Army (7)
Kristal, John, 292 Main st., Hackensack (2)
Krohn, Marc, Campbell av., Belford (13)
Krone, William F., 31 Lincoln Park, Newark (7)
Krudener, Robert D., 230 Fulton ter., Cliffside P.(2)
Krug, Alfred J., 1460 Clinton av., Irvington (7)
Kruger, William, 31 Lincoln Park, Newark (7)
Krugman, Benjamin M., 438 Park av., Paterson(16)
Kuchlewski, Edward J., 224 E. Jersey st.,Ellz'b'h(20)
Kuhlmann, Alvin E., 527 37th st., Union City (9)
Kuite, George B., 435 Speedwell av., Morris Pls.(14)
Kummel, Max, 31 Lincoln Park, Newark (7)
Kump, Albert B., 39 Lake st., Bridgeton (6)
Kun, Bertram, 135 Belmont av., Jersey City (9)
Kunderman, Philip J., 215 Harper st., Highl'd P.(12)
Kunz, Harold G., 64 Hawthorne pl., Montclair (7)
Kuperman, Henry L., 79 Baldwin av., Newark (7)
Kurtz, Geza R., 116 Fairview av., Jersey City (9)
Kushner, Alexander, 208 W. Milton av., Rahway(20)
Kustrup, John F., 1418 S. Broad st., Trenton (11)
Kutner, Charles, 211 N. Fifth st., Camden (4)
Kyhos, Emma D., 314 Hillside av., Nutley (7)
Kyle, Ernest I., 205 W. Ninth st., Plainfield (20)

ASSOCIATE MEMBERS

Kaplan, Elliot L., 251 Meeker av., Newark (7)
Kearney, Hugh, 323 N. Main st., Pleasantville (1)
Kelemen, Edward, 875 Broadway, Long Branch (13)
Kelly, John L., 82 Clinton av., Newark (7)
Kemezis, Vitas, Closter Dock rd., Closter (2)
Kerr, Andrew D., Jr., 19 Lincoln av., Clifton (16)
Kessler, Morris, 626 Schuyler av., Arlington (7)
Kieswetter, Dayton T., 75 Prospect st., E. Orange(7)
Kley, Edward A., 199 Dorchester rd., River Edge (2)
Kluft, Jack M., 280 Hobart st., Perth Amboy (12)
Kolisch, Paul deR., 39 Waldron av., Glen Rock (16)
Kollmar, Robert, 617 W. 168th st., New York,N.Y.(7)
Korbonits, Charles W., 1117 Sunset av.,AsburyP.(13)
Kosovsky, Harry, 26 Sheffield av., Englewood (2)
Kuhn, Richard E., 39 Fernwood ct., Clifton (16)
Kurtz, Gerald I., 306 Broadway, Paterson (16)

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ACTIVE MEMBERS

Laauwe, Harold W., 360 Park av., Paterson (16)
LaBarba, Peter J., 163 Washington pl.,Hasbr'kH.(2)
Labow, Joseph J., 757 N. Broad st., Elizabeth (20)
Ladas, George, 305 Cherry st., Elizabeth (20)
Lafferty, Elton B., 69 Orange av., Irvington (7)
Lakiszak, Roman T., 162 Harrison av., Jer. City (9)
Lamberto, Vito A., 422 Stuyvesant av.,Lyndhurst(2)
Lance, Elton W., 125 W. Milton av., Rahway (20)
Landaw, Louis, 631 E. 26th st., Paterson (16)
Landes, Edwin W., Stillwater (19)
Landesman, William, 187 Kearny av., Kearny (7)
Landis, Harry P., Jr., 901 Columbia av., Palmyra(3)
Landshof, Charles A., 50 Glenwood av., Jer. City (9)
Lane, Edgar W., 46 Main st., Bloomsbury (10)
Lane, Milton, 900 Stuyvesant av., Union (20)
Lane, Thomas F., 145 Garrison av., Jersey City (9)
Lang, Joseph, 111 Market st., Perth Amboy (12)
Lang, Joseph T., 115 Main st., South River (12)
Lang, Louis, 947 E. Jersey st., Elizabeth (20)
Lang, Paul, 32 W. Commerce st., Bridgeton (6)
Lang, Richard E., 463 Passaic av., Passaic (16)
Lange, Louis C., 50 Clifton ter., Weehawken (9)
Langston, Junius T., 521 E. Second st., Plainf'd(20)
Lapin, Louis P., 15 Crosswicks st., Bordentown (11)
Lapin, Mathew R., 628 W. State st., Trenton (11)
Largay, Arthur O., 937 Avenue C, Bayonne (9)
Larkey, Irving G., 95 Shanley av., Newark (7)
La Rosa Frank J., 316 N. Broadway, Pitman (8)
Larossa, Ernest A., 561 Benson st., Camden (4)
Larrabee, Callie H., 10 Irving pl., Summit (20)
Larson, Henry M., 35 Franklin st., Morristown (14)
Larsson, Evert A., N. J. State Hosp., Trenton (11)
Lathrop, Frederic W., 909 Park av., Plainfield (20)
Lathrope, George H., 965 Broad st., Newark (14)
Latona, Joseph A., 78 Main st., Lodi (2)
Laudig, Guy H., 361 Speedwell av., Morris Plains(14)
Laufenberg, Joseph W., 1544 S. Broad st.,Trent'n(11)
Laurusonis, John, 319 W. Broad st., Gibbstown (8)
Lavine, Barney D., 630 N. Clinton av., Trenton (11)
Lavine, Samuel C., 502 Georges rd., N. Br'nsw'k(12)
Lavine, Sidney B., 144 W. State st., Trenton (11)
Law, Harrison E., 397 Prospect av., Hackensack (2)
Lawless, Edward T., 47 Hawthorne av.,Bloomf'd(16)
Lawrence, Elias D., 499 Park av., Paterson (16)
Lawther, Boyd M., 1401 Shore rd., Northfield (1)
Lazow, S. Manlius, 199 Main st., Matawan (12)
Leach, John E., 274 Carroll st., Paterson (16)
Leaman, Granville M., 182 N. Grove st., E.Orange(7)
Leaver, Morris H., Quakertown (10)
LeBel, Louis J. B., 165 Grant av., Nutley (7)
Leber, Otto H., 63 Myrtle av., Montclair (7)
Ledden, Lewis J., 1104 Hamilton av., Trenton (11)
Lee, Benjamin F., 323 Mt. Vernon av.,Haddonfield(4)
Lee, John J., 309 Park av., Orange (7)
Lee, Robert E., 24 Great Oak dr., Short Hills (7)
Lee, Thomas B., 622 Cooper st., Camden (4)
Lee, William A., 269 Jewett av., Jersey City (9)
Leeds, Leonard W., 701 Stuyvesant av.,Irvington(7)
Leevy, Carroll M., 543 Bergen av., Jersey City (9)
Leff, Abraham, 98 Hackensack st., Wood-Ridge (7)
Leff, Charles O., 5 Elm ct., South Orange (7)
Leff, William A., 299 Clinton av., Newark (7)
Lefkovics, Sidney C., 41 Clinton pl., Newark (7)
Lefkowitz, Jacob H., 445 64th st., West New York(9)
Legato, Samuel F., 432 Palisade av., Cliffside Pk.(2)
Legg, George E., 666 Broadway, Paterson (16)
Leggett, Lindley H., Jr., 330 E. Broad st.,Westf'd(20)
Leggett, Thomas H., Jr., 706 Park av., Plainfield(20)
Lehmacher, Frank, 16 Central av., Lakewood (15)
Lehman, David J., Jr., 140 Roseville av., Newark (7)
Lehmann, Otto, 138 Bath av., Long Branch (13)
Leir, J. Krevin, 2787 Boulevard, Jersey City (9)
Lemay, Albert T., 532 14th av., Paterson (16)
Lemkin, Samuel, 71 Pomona av., Newark (7)
Lemmerz, Willard H.,135 Hack'ns'k st.,Wood-R'ge(2)
Lemmon, Junius M., 137 Belvidere av.,Wash'gton(21)
Lempke, Richard J., 3 Armstrong av., Jer. City (9)
Leon, Maurice J., 387 U. Mountain av., U. M'tcl'r(7)
Leonard, George F., 63 N. 5th av., Highland Pk.(12)
Leonard, Isaac E., 2842 Atlantic av., Atlantic City(1)
Leonard, Isaac E., Jr., 2842 Atlantic av., Atl. City(1)
Leonard, Lothair L., 615 Asbury av., Asbury Pk.(13)
Leonard, Martha F., 55 N. 5th av., Highland Pk.(12)
Leone, Peter P., 27 Princeton rd., Elizabeth (20)
Lepis, A. Albert, 39 Bentley av., Jersey City (9)
Lepree, Joseph A., 371 Morris av., Elizabeth (20)
Lerman, Frederick, 1024 E. Jersey st., Elizabeth(20)
Lerman, Irving, 1024 E. Jersey st., Elizabeth (20)
Lerman, Samuel, 116 Brightside av.,Pikesv'e,Md.(20)
Leshin, Harry, 564 S. Main st., Hightstown (11)
Lesko, Stephen W., 234 Mt.Pleas't av.,E.Ruth'rf'd(2)
Lettiere, Anthony J., 425 E. State st., Trenton (11)
Leuzzi, Darwin A., 2515 Palisade av., Union City(9)
Levendusky, Daniel E., 20 W. Main st.,Rockaw'y(14)
Levin, Jack, 95 W. Main st., Freehold (13)
Levin, Joseph, 831 S. 13th st., Newark (7)
Levin, Murray, 20 Callamore dr., West Orange (7)
Levine, David B., 647 Broadway, Paterson (16)
Levine, Edward P., 384 Clinton av., Newark (7)
Levine, G. Irving, 100 Bentley av., Jersey City (9)
Levine, Philip, 61 Lincoln Park, Newark (7)
Levine, Sidney C., 459 Park av., Paterson (16)
Levinsohn, Sandor A., 656 E. 29th st., Paterson (16)
Levinson, David M., 860 S. 12th st., Newark (7)
Levinson, Louis J., 43 S. Pierson rd., Maplewood (7)
Levinson, Reuben, 123 Market st., P. Amboy (12)
Levinstone, Bertram, Army (7)
Levison, William, 75 Lincoln Park, Newark (7)
Levitas, George M., 199 Fairview av., Westwood (2)
Levitas, Irving M., 199 Fairview av., Westwood (2)
Levitov, Leo, 179 Wilkinson av., Jersey City (9)
Levitt, Jesse N., 26 Clinton pl., Newark (7)
Levy, Anna L., 32 S. Munn av., East Orange (7)
Levy, David, 268 Park av., Paterson (16)
Levy, Herman, 158 Lexington av., Passaic (16)
Levy, Irvin, 222 W. State st., Trenton (11)
Levy, Jack D., 191 Union st., Hackensack (2)
Levy, Julius, 329 Hartford rd., South Orange (7)
Lewandowski, Edmund E., 2 Smalley ter.,Irv'gt'n(7)
Lewin, Leo, Howard Blvd., Mt. Arlington (14)
Lewis, Albert, 41 Retford av., Cranford (20)
Lewis, Alexander, 113 E. Milton av., Rahway (20)
Lewis, Alice B., 1 Gilbert rd., Hohokus (2)
Lewis, Collins E., 219 Seaman st., New Brunsw'k(12)
Lewis, G. Rae, 458 Washington av., Belleville (7)
Lewis, Jacob, 43 Court st., Freehold (13)
Lewis, Robert L., Jr.,636Westminster av.,Eliz'b'h(20)
Lewis, Sanford M., 39 Meadowbrook pl., Maplew'd(7)
Lewis, Sydney B., 194 W. State st., Trenton (11)
Lewis, Thomas K., 804 Wilson bldg., Camden (4)
Liccese, Emanuel, 84 Jefferson st., Newark (7)
Lichtenberg, Walter, 309 Kind'rk'm'k rd.,Westw'd(2)
Licks, Frederick C., 64 Scotland rd., South Orange(7)
Liddell, Raymond N., 45 Grant av., Somerville (18)
Lieb, Robert L., 61 Lincoln Park, Newark (7)
Lieb, Saul, 90 Treacy av., Newark (7)
Lieberman, David P.,597 Westmins'r av.,Elizab'h(20)
Lieberman, Milton L., 101 Pershing av.,RoselleP.(20)
Lieberson, Leonard, 20 62nd st., West New York (9)
Lief, Lawrence H., Gatzmer av., Jamesburg (12)

Liegner, Ben, 858 S. 12th st., Newark (7)
Lifland, Bernard D., 70 Shanley av., Newark (7)
Light, Arthur B.,Lawrenceville School,Lawr'ev'e(11)
Lilien, Bernard B., 1191 Clinton av., Irvington (7)
Lilien, Milton, 1191 Clinton av., Irvington (7)
Lilien, Milton M., 152 Clark st., Hillside (20)
Lima, John G., 292 Broadway, Paterson (16)
Linares, A. Carfi, 208 Market st., Paterson (16)
Lincoln, Jennings S., 140 Watchung av., Montcl'r(7)
Lind, Zoltan H., 215 Livingston av., N.Br'nsw'k(12)
Linden, Mortimer H., 45 Clendenny av., Jer. City (9)
Lindroth, Lawrence V., 4525 Boulevard, N.Bergen(9)
Linke, James J. P., 245 E. Front st., Plainfield (20)
Lintz, Sidney Z., 525 Kings Hwy., Swedesboro (8)
Linz, Curt, 561 Franklin av., Nutley (7)
Lione, John G., 20 E. 32nd st., Bayonne (9)
Lipkin, Isadore, 157 W. Main st., Penns Grove (17)
Lippman, Nathan L., 504 Pacific av., Atl. City (1)
Lipshutz, Benjamin, 18 W. 22nd st., Bayonne (9)
Lipshutz, Charles, 820 Avenue C, Bayonne (9)
Lipstein, William, 845 Chancellor av., Irvington (7)
Lipton, Louis, 67 Passaic av., Passaic (16)
Lisanti, Gaetano, 6109 Monroe pl.,West New York(9)
Little, Rufus R., Bergen Pines Hosp., Oradell (2)
Littwin, Charles, 950 Queen Anne rd., Teaneck (2)
Liva, Paul F., 280 Stuyvesant av., Lyndhurst (2)
Liva, Vinicio G., 280 Stuyvesant av., Lyndhurst (2)
Livengood, Baxter A., 64 Cooper st., Woodbury (8)
Livengood, Horace R., 587 Westm'st'r av.,Eliz'b'h(20)
Livingston, Bernard, 30 Park av., Caldwell (7)
Livingston, Elias, 591 Stuyvesant av., Irvington (7)
Livingston, Paul, 299 Main st., East Orange (7)
Livingston, Sydney R., 650 W. 7th st., Plainfield(20)
Lloyd, Samuel J., 178 W. State st., Trenton (11)
Llull, Gabriel J., 266 Morris av., Springfield (20)
Lobban, Robert B., 2595 Boulevard, Jersey City (9)
Lobsenz, Nathan P., 294 Broadway, Paterson (16)
LoBuono, Joseph, 228 60th st., West New York (9)
Locke, Henrik W., 243 W. Main st., Moorestown (4)
Loder, Horace B., 225 E. Commerce st., Bridgeton(6)
Loder, Joseph S., 924 S. 17th st., Newark (7)
Loeser, Lewis H., 188 Clinton av., Newark (7)
Lohman, Herman, 31 Lincoln Park, Newark (7)
Loizeaux, Edward C., 320 E. 7th st., Plainfield (20)
Loizeaux, Theodore, 212 E. 7th st., Plainfield (20)
Loman, Samuel G., 139 Jefferson av., Cresskill (2)
Lomauro, James R., 184 Lexington av., Passaic (16)
Lomax, Charles L., 417 W. Broad st., Westfield(20)
Lombardi, Frank L., 25 E. Clinton av., Bergenfi'd(2)
Lombardo, Bartlo, 111 Wilson av., Newark (7)
London, Isabel M., 103 N. Fourth av., Highl'd P.(12)
London, Jules R.. 340 Paulison av., Passaic (16)
London, Leslie, 120 Lexington av., Passaic (16)
London, Randolph A., 7615 Park av., N. Bergen (9)
London, William, 255 State st., Perth Amboy (12)
Londrigan, Joseph F., 832 Bloomfield st.,Hoboken(9)
Londrigan, Joseph F., II, 832 Bloomf'd st.,Hobok'n(9)
Long, Elias E., 85 W. Front st., Red Bank (13)
Long, John F., 82 Grand pl., Arlington (7)
Long, Miles T., 2150 Boulevard, Jersey City (9)
Long, Pauline A., 22 Livingston av., N.Br'sw'k(12)
Longnecker, John E., Jr., Sparta (19)
Longo, James J., 74 Ridge rd., N. Arlington (7)
Looloian, Mehran W., White House Station (10)
Lord, C. Donald, 76 W. Ridgewood av., Ridgew'd(2)
Lore, Harry E., Main st., Cedarville (6)
Losada, Camella A., Cathedral Sta.Box154,N.Y.C.(20)
Lotman, Harry, 636 Stuyvesant av., Irvington (7)
Lovell, John F., 1013 Clinton av., Irvington (7)
Lovett, Irving K., 110 E. Front st., Red Bank (13)
Lovett, Joseph C., Municipal Hospital, Camden (4)
Low, Donald B., 529 Broadway, Paterson (16)
Lowe, Louise, 370 State st., Hackensack (2)
Lowell, Milton E., 434 Summit av., Westfield (20)
Lowenberg, Robert I., 74 Hawthorne pl., Summit(20)
Lowenstein, Aaron, 860 S. 11th st., Newark (7)
Lowenstein, Ernest C., 259 W.Milton av.,Rahw'y(20)
Lowenstein, Harry A., 96 Milford av., Newark (7)
Lowrey, James H., 79 Congress st., Newark (7)
Luban, Benjamin, 730 High st., Newark (7)
Luca, Frank, 563 Westwood av., Long Branch (13)
Luca, Mildred O., 563 Westwood av., L. Branch (13)
Lucas, Stanley L., 44 N. Kentucky av., Atl. City (1)
Lucas, W. Fred, 23 W. Broad st., Burlington (3)
Lucent, S. Bell, 2 First av., Little Falls (16)
Lucey, James J., 184 Market st., Perth Amboy (12)
Luczynski, Edward W., 726 Avenue C, Bayonne (9)
Luddecke, Hugh F., 40 Franklin st., Morrist'n (14)
Lueddecke, Roland E., 216 Rand'h av.,E.Ruth'rf'd(2)
Lufburrow, Charles B., 441 W. Front st.,Plainf'd(20)
Luippold, Eugene J., Jr.,130 Fairv'w av.,Boont'n(14)
Luksteid, Casimir J., 326 Park av., Paterson (16)
Lundblad, Walter E., 75 Prospect st., E. Orange (7)
Luongo, Federico, 212 S. Centre st., Orange (7)
Lupin, Edward E., 930 Boulevard, Bayonne (9)
Luria, Sanford A., 249 Queen Anne rd., Bogota (2)
Lurie, Wolf, 379 Kearny av., Kearny (7)
Lushear, Frank H., Branchville (19)
Lustig, Melvin, 227 Schuyler av., Newark (7)
Lutz, Martin H., 130 W. Fifth av., Roselle (12)
Lutz, William M., 3 Southern Slope dr., Millburn(7)
Lyerly, James M., 815 Park av., Plainfield (20)
Lynch, Cornelius G., River rd., Yardley, Pa. (11)
Lynch, Donald C., 885 Stuyvesant av., Trenton (11)
Lynch, Edward T., 748 Livingston rd., Elizabeth(20)
Lynch, James F., 1947 Boulevard, Jersey City (9)
Lynch, Maurice M., 46 Anderson st., Hackensack(2)
Lynch, Roland J., Mental Dis. Hosp., Secaucus (9)
Lynn, Hugh B., Pompton Tpk.,Pompton Plains (7)
Lynn, Irving L.. 2760 Boulevard, Jersey City (9)
Lyon, Archibald, 115 Ridge rd., North Arlington (7)
Lyon, Earl C., 194 E. Commerce st., Bridgeton (6)
Lyons, James V., 333 Park av., Orange (7)
Lyons, Romola L. K.,171 Mead'wbr'k rd.,Englew'd(2)

ASSOCIATE MEMBERS

Langgaard, Charles, 20 Prospect st., W. Orange (7)
Leone, Armando, 416 Park av., Paterson (16)
Levine, Burton, 31 Lincoln Park, Newark (7)
Levy, Bernard, 181 Claremont av., Verona (7)

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ACTIVE MEMBERS

Maas, Max A., 329 Clinton av., Newark (7)
Mabee, John R., 24 Center av., Little Falls (16)
Mabey, J. Corwin, 242 Claremont av., Montclair (7)
MacAlpine, Kenneth B.,500 ChewsLdg.rd.,Had nf'd(4)
Macaluso, Dominic C., 452 Wash'gton av.,Bellev'e(7)
MacArt, J. Harold, 120 Prospect st.,South Orange(7)
MacArthur, Clymont, 219 Roseville av., Newark (7)
Macaulay, Francis A., 819 Elm av., Teaneck (2)
MacDermid, Lynden E.,506 Farnsw'h av.,Bord't'n(11)
MacDonald, Edward O., 719 Locust st., RoselleP.(20)
Macdonald, Wentw'th S.,1 N.Brookw'd dr.,Montcl'r(7)
MacGregor, Allan W., 379 Ellison st., Paterson (16)
MacGregor, Mary E.C.,242 Fairm'nt av.,Chath'm(14)
MacKellar, James M., 26 E. Clinton av., Tenafly (2)

MacKenzie, Robert A., 501 Grand av., AsburyPk.(13)
Mackes, Claude B., 48 N. Main st., Woodstown(17)
Mackin, John J., 596 Bergen av., Jersey City (9)
Mackler, Harry S., 752 N. Broad st., Elizabeth (20)
Mackler, Meyer E., 627 E. 24th st., Paterson (16)
Maclay, Joseph A., 239 Broadway, Paterson (16)
MacMillan, C. Wright, 4 Duryea rd., Up.Montcl'r(7)
MacNeal, Perry S., 417 Chester av., Moorestown(3)
Macnieski, Henry F., 300 Davis av., Harrison (7)
Macpherson, Elwood H., 34 Rawley pl., Millburn (7)
Madara, John S., 31 Market st., Salem (17)
Madaras, John S., 870 Avenue C, Bayonne (9)
Maddren, Russell F., 372 Union st., Hackensack (2)
Mader, A. Ivan, Jr., 430 Union st., Hackensack (2)
Madi, Risley J., 735 Montrose st., Vineland (6)
Madison, L. Keith, 358 Pacific av., Jersey City (9)
Maffeo, Carl E., 149 Van Buren st., Newark (7)
Maffongelli, Joseph A., 494 River st., Paterson (16)
Magee, Edward S., 201 Wt. Horse Pk., Audubon (4)
Magee, Harold S., N. J. State Hosp., Trenton (11)
Magee, Russell S., 201 Wt. Horse Pk., Audubon (4)
Magee, William P., 1009 Abbott blvd., Palisade (2)
Maggio, George A., 419 Roseville av., Newark (7)
Maggio, Nicholas A., 130 Fleming av., Newark (7)
Maggio, Ross J., 206 Park av., Westfield (20)
Magill, Marcus, 4116 Ventnor av., Atlantic City (1)
Magnes, Max, 555 15th av., Paterson (16)
Magolda, Anthony F., 727 Grape st., Vineland (6)
Magovern, Thomas F., 228 S. Orange av.,S.Orange(7)
Magson, Albert E., 302 S. Main st., Hightstown(11)
Maher, John E., 90 Third av., Long Branch (13)
Mahoney, Francis W., 41 Crescent av.,JerseyCity(9)
Mahood, Herbert L., 86 Durand rd., Maplewood (7)
Mains, M. Paul, Mercer Hospital, Trenton (11)
Maisel, Irving, 112 Chapman pl., Irvington (7)
Majeski, Henry J., 930 Brunswick av., Trenton (11)
Major, Morton M., 4212 Ventnor av., Atlantic City(1)
Makin, John B., 501 Grand av., Asbury Park (13)
Malatesta, Charles S., 1203 Martine av.,Plainf'd(20)
Maldeis, Albertos M. K., 117 N. Sixth st., Camden(4)
Malgeri, John, 279 Shepard av., East Orange (7)
Malinowski, John, 554½ Jersey av., Jersey City (9)
Mallison, Herbert, 819 Park av., Plainfield (20)
Mamlet, Alfred M., 33 Johnson av., Newark (7)
Manahan, Daniel V., 55 E. Front st., Red Bank (13)
Mancene, Edward M., 225 Main st., Little Ferry (2)
Mancusi-Ungaro, Elviro, 155 Mt.Prosp't av.,New'k(7)
Mancusi-Ungaro, Harold, 480 Grove st., Montcl'r(7)
Mancusi-Ungaro, Lodovico, 156 M.Pr'p't av.,N'w'k(7)
Manette, Milton, 535 41st st., Union City (9)
Manfro, Gerard J., 35 Newark st., Newark (7)
Mangogna, Philip, 334 Barclay st., Perth Amboy(12)
Mangone, Edith, 174 Clinton av., Jersey City (9)
Mann, Jacob J., 255 State st., Perth Amboy (12)
Manno, Peter D., 843 Boulevard, Bayonne (9)
Manrodt, Kurt, Jr., Pompton Plains (16)
Manser, Ernest E., 321 Haddon av., Collingsw'd (4)
Mansfield, Richard, 435 59th st., West New York(9)
Marcarian, Henry G., 917 Cooper st., Camden (4)
Marchigiano, Michael A., 88 Westf'd av.,Rahway(20)
Marchione, Nicholas E., 105 S. East av., Vineland(6)
Marcus, Bernard, 6 S. Clark av., Somerville (18)
Marcus, Donald, 647 Stuyvesant av., Irvington (7)
Marcus, Kurt, 85 Bowers st., Jersey City (9)
Margaretten, Edward I., 280 Hobart st.,P.Amboy(12)
Margolis, Alfred, 736 Sanford av., Newark (7)
Margulies, Charles, 49 Park dr., Nutley (7)
Marin, Robert B., 85 Park st., Montclair (7)
Marini, Dominick, 40 Henry st., Passaic (16)
Marino, Benjamin, 14 Llewellyn pl., N.Br'nsw'k(12)
Mark, Harold I., 1022 Garrison av., Teaneck (2)
Mark, Harry B., 600 Elm ter., Riverton (3)
Mark, Joseph S., 102 Green st., Woodbridge (12)
Markley, Luther A., Holy Name Hosp., Teaneck (2)
Markowitz, Irwin B., 2157 Boulevard, Jersey City(9)
Markowitz, Isidor, 115 Broadway,West Cape May(5)
Markowitz, Louis, 380 Park av., Paterson (16)
Marks, Zelda I., 200 Clinton av., Newark (7)
Marlett, Neumann C., 230 Greenw'h st.,Belvid're(21)
Marone, Carmine R., 752 Newark av., Elizabeth (20)
Maroney, James H., 129 Summit av., Summit (20)
Marquis, Dean W., 144 Harrison st., East Orange(7)
Marquis, W. James, 12 Hawthorne av., E. Orange(7)
Marra, Rocco S., 221 Park av., Orange (7)
Marrella, Louis F., 339 Pacific av., Jersey City (9)
Marrocco, William A., 445 Park av., Paterson (16)
Marshall, Frank A., 2202 Palisade av.,Weeh'wk'n(9)
Marshall, H. Donald, 707 N. Indiana av., Atl. City(1)
Marshall, Irving, 7 Tonnele av., Jersey City (9)
Martin, Francis E., 130 Mansfield st., Belvidere(21)
Martin, Leonard J., Box 431, Asbury Park (13)
Martin, Theodore, 577 Lincoln av., Glen Rock (16)
Martin, William E., 110 Claremont pl., Cranford(20)
Martland, Harrison S., City Hospital, Newark (7)
Marts, George H., 956 Park av., Plainfield (20)
Marvel, Peter H., 2216 Shore rd., Northfield (1)
Marvin, Dorothy H., 51 Livingston av.,N.Br'sw k(12)
Marx, Frederick J., 539 Kinderkam'k rd.,River E.(2)
Mascara, Gaetano A., 540 Wood st., Vineland (6)
Masciocchi, Thomas A., 316 Park av., Orange (7)
Mason, Alvin S., 26 Olive st., Salem (17)
Mason, James H., 1616 Pacific av., Atlantic City (1)
Mason, John T., Jr., 118 Young av., Cedar Grove (7)
Mason, Stuart A., 756 E. Ridgewood av., Ridgew'd(2)
Mason, Virgil A., 144 Harrison st., East Orange (7)
Massengill, Fulton, 233 Heywood av., Orange (7)
Massey, J. Bruce, 665 High st., Newark (7)
Mast, Joseph E., 42 Westfield av., E., Roselle Pk.(20)
Masterson, John F., 98 Myrtle av., Irvington (7)
Mastroianni, Frank M., 634 Sherm'n av.,Ros'leP.(20)
Mastromonaco, Joseph D., 790 Avenue C,Bayonne(9)
Masucci, Alberico, 128 Carroll st., Paterson (16)
Matheke, George A., 555 William st., East Orange(7)
Matheke, Otto G., 328 Sussex av., Newark (7)
Matheke, Otto G., Jr., 328 Sussex av., Newark (7)
Mathesheimer, Jacob L., 280 Old Bergen rd.,Jer.C.(9)
Matheson, Gilchrist E., 144 Harrison st.,E.Orange(7)
Mathews, Raymond H., 186 South st., Morrist'n(14)
Matthews, Clifford B., 1180 Raymond Blvd.,New'k(7)
Matthews, Leonard M., 655 Main av., Passaic (16)
Matthews, William, 139 Broad st., Red Bank (13)
Matthews, William F., 180 Walnut st., Montclair(7)
Matturri, Dominick A., 81 Gifford av., Jersey City(9)
Maturi, Vincenzo E., 814 Boulevard, Bayonne (9)
Mauer, Richard E., 109 S. Midland av., Arlington(7)
Maurer, K. Virginia, 16 Prospect rd., Livingston (7)
Maurer, Martha E., 153 Mountain av., Westfield (20)
Maver, William W., 532 Bergen av., Jersey City (9)
May, Ernst A., 157 Harrison st., East Orange (7)
Mayhew, Charles H., 329 Pine st., Millville (6)
Mazur, Stephen H., 557 Grove st., Irvington (7)
Mazzei, Armando, 282 Liberty st., L. Branch (13)
Mazzotta, Samuel, 5806 Pacific av., Wildwood (5)
McAfoos, Louis G.,Jr.,608 Eldridge av.,W.Col'gsw'd(4)
McAlpine, Paul, 129 Summit av., Summit (20)
McAveney, Thomas F. G., 58 N. Munn av., E. Or.(7)
McBride, Andrew F., Jr., 655 Broadway,Paterson(16)
McCaffrey, Wallace T., 82 Highw'd ter.,Weeh'k'n(9)
McCallion, Wm. H., 722 Westminster av.,Elizab'h(20)
McCallum, Arthur S., 213 Clements Br.rd.,Bar'gt'n(4)
McCarroll, E. Mae, 59 Hillside pl., Newark (7)
McCarron, James A., 727 Avenue C, Bayonne (9)
McCarthy, Arthur M., 2772 Federal st., Camden (4)
McCarthy, George L., 506 Union av., Paterson (16)
McCarthy, John J., 1001 79th st., North Bergen (9)
McCarthy, William P., 1203 Parkside av.,Trent'n(11)
McCauley, Francis J., 140 Roseville av., Newark (7)
McClintock, Elsie, 1439 Maple av., Hillside (20)
McCluskey, Harry B., 40 Hawth'ne av.,E. Orange(7)
McConaghy, Thomas P.,10th & Cooper sts.,Camd'n(4)

McCorkle, William E., Ringoes (10)
McCormack, Frank C., 95 Tenafly rd., Englewood(2)
McCormack, Raymond A.,873 Bel'vue av.,Trent'n(11)
McCormick, James E., 775 Elizabeth av., Newark(7)
McCormick, Wm. H., Jr., 266 Market st.,P.Amboy(12)
McCracken, Josiah C., Jr.,16 S.Suffolk av.,Ventnor(1)
McCreight, David W., N.J. State Hosp.,Marlboro(13)
McCroskery, Hamilton M.,471 N.Arl'gt'n av.,E.Or.(7)
McCroskery, James H., 471 N. Arl'gt'n av.,E. Or. (7)
McCue, John B., 118 Lenox av., Pompton Lakes(16)
McCullough, John H., 523 E. State st., Trenton (11)
McCullough, Walter A., Essex Co. Hosp.,Cedar G.(7)
McCurdy, Robert G.,74 W.Highland av.,Atl.Hlds.(13)
McDermott, Vincent T., 509 State st., Camden (4)
McDonald, John, Jr., 322 Fifth st., Belvidere (21)
McDonald, Richard J., 80 Park av., Paterson (16)
McDonnell, George J., 80 W. Main st., Freehold (13)
McFeely, Percy R., 242 Palisade av., Bogota (2)
McGahn, Joseph, 18 S. Stenton pl., Atlantic City (1)
McGeary, John A., 610 Salem av., Elizabeth (20)
McGee, Hugh E., 117 Cedar lane, Teaneck (2)
McGeehan, Stanley M., 6505 Atlantic av., Ventnor(1)
McGinn, William J., 1913 Westfield av.,Scotch P.(20)
McGlade, Thomas H., 1225Walnut av.,W.Col'gsw'd(4)
McGovern, John F.,Jr.,24Liv'gston av.,N.Br'sw'k(12)
McGovern, Patrick J., 3284 Boulevard, Jer. City (9)
McGreevey, Harold, 314 Brighton av., Spring L.(13)
McGuigan, Francis A., 212 N.Warren st.,Trenton(11)
McGuinn, William B., 10 N. Ridgewood rd., S. Or.(7)
McGuire, John J., 2 Gould av., Newark (7)
McGurl, Francis J., 763 Broad st., Newark (7)
McIlveen, Marion, 260 Godwin av., Ridgewood (2)
McKeever, William J., 990 Summit av., Jer. City(9)
McKelvey, Augustus J., 274 Millburn av.,Millburn(7)
McKelvie, Julius C., 55 Rockwell av., L. Branch(13)
McKeown, George H. C.,68 Mont'ne st.,Br'kl'n,N.Y.(7)
McKiernan, Robert L.,75Liv'gston av.,N.Br'sw'k(12)
McKim, William F., 317 Roseville av., Newark (7)
McKinstrey, John W., Railroad av., Jamesburg(12)
McLane, A. Donald, 498 Engle st., Englewood (2)
McLaughlin, Wm. B., 120 Branch Br'k dr.,Bel'v'e(7)
McLean, Hugh A., 414 61st st., West New York (9)
McLellan, George A., 19 Hawthorne av., E. Or. (7)
McLeod, Harry J., 71 Forest rd., Tenafly (2)
McLoughlin, Frank J., 558 Jersey av., Jersey City(9)
McMahon, Bernard C., 15 James st., Morristown (14)
McMurtrie, William A., 20 Franklin st., Morrit'n(14)
McNeely, Julia A., 17 Lyons av., Newark (7)
McNenney, Claudio E., 113 Fairview av.,Jer. City(9)
McPherson, Malcolm E.,141Di'm'd Br.av.,H'wth'e(16)
McTague, Robert S., 37 E. Wash'gt'n av.,Atl.Hd(13)
McVay, Edward A., 234 Lafayette st., Newark (7)
McWhorter, John E., 115 Grand av., Englew'd (2)
McWilliams, Charles E., Church st., Blackwood (4)
Means, Paul B., N. J. State Hosp., Trenton (11)
Mears, William G., 216 Hillside av., Leonia (2)
Mechanik, Harvey K., 121 E.Seventh st.,Plainf'd(20)
Mecray, Paul M., 405 Cooper st., Camden (4)
Mecray, Paul, Jr., 405 Cooper st., Camden (4)
Meehan, George E., 117 Mercer st., Jersey City (9)
Meehan, Martin M., 339 Washington av.,Bellev'e(7)
Meeker, Irving A., 581 Valley rd., Up Montclair (7)
Meeker, John L., 6 De Barry pl., Summit (20)
Meer, Nadhim E., 338 Park av., Paterson (16)
Megibow, Harold J., 82 W. Main st., Ramsey (2)
Meier, William U., 1062 Ringwood av., Haskell (16)
Meineke, William C., Jr., 820 Chestnut st.,Roselle(20)
Meinhard, Fred, 154 Van Buren st., Newark (7)
Meinzer, Martin S., 147 Market st., Perth Amboy(12)
Meisel, David B., 818 S. 12th st., Newark (7)
Mele, Vincent, 268 Prospect st., South Orange (7)
Mellen, Stanley H., 1 Park pl., Bloomfield (7)
Meloney, Lester F., 156 Second st., Clifton (16)
Meltsner, Louis, 904 Hudson st., Hoboken (9)
Melvin, Daniel G., N. J. State Hosp.,Greyst'e P.(14)
Menden, Julian, 45 E. Blackwell st., Dover (14)
Meneve, Alfred D., 320 Broadway, Paterson (16)
Menge, Carl H., 236 Washington st., Toms River(15)
Menk, Paul E., 31 Lincoln Park, Newark (7)
Mensch, Harvey G., 1117 Mary st., Elizabeth (20)
Merendino, Anthony G., 2720 Pacific av., Atl. City(1)
Merk, Anthony, 79 N. Ninth st., Newark (7)
Merkelbach, Walter P., 288 Broad st., Bloomfield (7)
Merliss, Eugene, 386 Clinton av., Newark (7)
Merlo, Francis A., 210 Murray st., Elizabeth (20)
Merlo, Francis V., 33 Prince st., Elizabeth (20)
Mermod, Camille, 15 Washington st., Newark (7)
Merrick, Evelina, 142 Clinton av., Newark (7)
Merrill, Edwin D., Milford (10)
Merselis, John G., 110 Irvington av., S. Orange (7)
Messina, Thomas, 128 Park av., East Orange (7)
Messinger, Samuel, 31 Roosevelt av., Carteret (12)
Metsky, Joseph, 777 High st., Newark (7)
Metz, Henry, 445 Prospect av., Hackensack (2)
Metzer, Freeman W., 428 Fairview st., Riverside (3)
Meurlin, Alfred, 144 Harrison st., East Orange (7)
MeVay, James C. F., 2907 Pacific av.,AtlanticCity(1)
Meyer, Eugene A., 427 Cooper st., Camden (4)
Meyer, George P., 410 Haddon av., Camden (4)
Meyer, Howard M., 400 Maple Hill dr.,Hackens'k(2)
Meyer, William, 2128 New York av., Union City (9)
Meyerson, Noah, 428 59th st., West New York (9)
Mezzettl, Alfred F., 220 S. Sixth st., Vineland (6)
Michell, George E., 221 High st., Hackettstown (21)
Michelson, Henry, 675 E. 24th st., Paterson (16)
Mick, Edwin C., 46 S. Burnett st., East Orange (7)
Mickewich, Stephen A., 817 Avenue C, Bayonne (9)
Miele, Frank A., 314 Carr av., Keansburg (13)
Migliori, Angelo, 531 S. Clinton av., Trenton (11)
Milano, Cesare A., 1 S. Brighton av., Atlantic City(1)
Miller, Charles E., 228 Main st., Hackettstown (21)
Miller, Earle K., 2512 Nottingham way, Trenton(11)
Miller, Eugene L., 63 Baldwin av., Newark (7)
Miller, George M., 288 Elm av., Rahway (20)
Miller, Gerald H., N. Main st., Cranbury (11)
Miller, Herman P., 815 S. 12th st., Newark (7)
Miller, I. Irwin, 675 Sanford av., Newark (7)
Miller, Joseph A., 364 Prospect st., S. Orange (7)
Miller, Max H., 311 60th st., West New York (9)
Miller, Nathan, 268 S. Harrison st., East Orange (7)
Miller, Ralph, 43 Girard pl., Newark (7)
Miller, Raymond E., 192 W. State st., Trenton (11)
Miller, Reginald C., 1420 Greenwood av.,Trenton(11)
Miller, Robert M., 36 Woodland av., Summit (20)
Miller, S. David, 90 Carroll pl., N. Brunswick (12)
Miller, Samuel R., 407 S. Main st., Pennington (11)
Miller, William H., 7 Dickinson st., Woodstown (17)
Milliser, Estelle T., 126 N. Euclid av., Westf'd (20)
Mills, Clifford, 36 Maple av., Morristown (14)
Milnamow, Paul, 538 Cooper st., Camden (4)
Minard, Edwy L., Knoll rd., R.F.D. 1, Boonton (7)
Mineur, Henry J., 117 Alden st., Cranford (20)
Minier, Carl L., 226 N. Park st., East Orange (7)
Miningham, William D., 18 Hedden ter., Newark (7)
Minnefor, Charles A., 1164 S. Orange av., S. Or.(7)
Minschwaner, Geo. G.,Jr.,832 Gr'nw'd av.,Tr'nt'n(11)
Mintz, Alvin R., 32 Maple av., Morristown (14)
Mintz, Julius, Sycamore av., North Plainfield (18)
Mishler, Jay E., 1616 Pacific av., Atlantic City (1)
Misko, Albert, 117 Westervelt av., N. Plainf'd(18)
Missonelile, William, 404 Lafayette av., H'wt'ne(16)
Mitchell, Augustus J., 270 Montclair av., Newark (7)
Mitchell, Charles H., 1100 W. State st., Trenton (11)
Mitchell, Charles R., 311 Broadway, Paterson (16)
Mitchell, Walter L., Jr., 161 Roseville av.,Newark(7)
Mitchell, Willis B., W. Wash'gton st., Toms R.(15)
Mitskas, Theodore V.J.,1329Greenw'd av.,Tr'nt'n(11)
Mockett, Walter W., 55 E. Magnolia av., Mayw'd(2)
Modeski, Chester J., 306 Roseville av., Newark (7)
Modny, Michael T., 262 Ridgewood av., GlenRidge(7)

Modrys, Walter F., 1400 Palisade pl.,HudsonHts.(2)
Moeckel, Clarence W., 63 S. Fullerton av.,Montcl'r(7)
Mohair, John P., N. J. State Hosp., Marlboro (13)
Mohr, Frank L., 560 Morris av., Summit (20)
Moir, John A., 18 N. Main st., Cape May Ct. H. (5)
Molitch, Matthew, 705 Pacific av., Atlantic City(1)
Monaco, Dante P., 436 Roseville av., Newark (7)
Monaco, Saverio A., 293 Camden st., Newark (7)
Monaloy, Morris A., 414 Passaic av., Passaic (16)
Monica, Louis A., 875 Boulevard, Bayonne (9)
Monosson-Friedland, Ida, 200 N. East av.,Vinel'd(5)
Monte, Thomas D., 213 Park st., Montclair (7)
Moolten, Sylvan E., 103 N. Fourth av.,Highl'd P.(12)
Moon, Dabney vonK., 706 Park av., Plainfield (20)
Moore, Dean C., 391 Highland av., Orange (7)
Moore, J. Leonard, 59 Westcott rd., Princeton (11)
Moore, Ralph L., 127 N. Broad st., Woodbury (8)
Moore, William J., 10 N. Olden av., Trenton (11)
Mores, Herbert R., 321 Union st., Hackensack (2)
Moress, Edward J., 1524 Maple av., Hillside (7)
Morgan, Browne, 32 Benson st., Bloomfield (7)
Morgenstern, Mates, 341 George st., N.Brunsw'k(12)
Moriarty, John F., 723 Washington st., Hoboken(9)
Morici, Theodore, 80 Howe av., Passaic (16)
Moriconi, Albert F., 438 Hamilton av., Trenton (11)
Morley, Grace C., 1218 Hudson st., Hoboken (9)
Morrill, James P., Jr., 310 Broadway, Paterson (16)
Morris, Carlyle, Spring st., Metuchen (12)
Morris, David G., 11 W. 26th st., Bayonne (9)
Morris, Karl E., 648 E. Broad st., Westfield (20)
Morris, Thomas M., 505 Park av., Plainfield (20)
Morris, Watson B., 193 Morris av., Springfield (20)
Morrow, J. Lloyd, 585 Main av., Passaic (16)
Morrow, Joseph R., 45 N. Broad st., Ridgew'd (2)
Morton, Thomas V., Jr., 263 Bloomf'd av.,Bl'mf'd(7)
Moscoe, Harry A., 542 Broadway, Paterson (16)
Moss, Jack W., Maple av., Wyckoff (2)
Mott, Joseph E., 426 Park av., Paterson (16)
Motzenbecker, Peter F., 69 S. Pierson rd.,M'plew'd(7)
Motzenbecker, William J., 16 Milford av., New'k(7)
Mountford, William E., 217 N. War'n st.,Tr'nt'n(11)
Movelle, John, 840 River rd., Fair Haven (13)
Moynahan, Brian,118 N.Walt'r st.,Albuq'rq'e,N.M.(7)
Muccia, John J., 7 Tonnele av., Jersey City (9)
Mueller, George H., 102 Summit av., Jersey City (9)
Mulford, William P., 202 Warren st., Beverly (3)
Muller, Frederick L., 511 Broad st., Carlstadt (2)
Mulligan, Edward W., 81 Shrewsb'y av.,Red B'k(13)
Mulligan, Luke A., 230 Fort Lee rd., Leonia (2)
Mullin, Raymond J., 76 Shanley av., Newark (7)
Mulvihill, William J., 275 Boulevard, Bayonne (9)
Munro, Jeannette, 2 Queenston pl., Princeton (11)
Murn, Charles J., 48 Smith st., Paterson (16)
Murphy, Arthur G., 454 Park st., Up. Montclair (7)
Murphy, Herschel S., 320 Chestnut st., Roselle (20)
Murphy, James A., 312 Bellevue av., Trenton (11)
Murphy. James M., 2757 Boulevard, Jersey City (9)
Murphy, Leo J., 1814 West st., Union City (9)
Murphy, Patrick H. W., 27 Jefferson av., Jer. C.(9)
Murphy, Thomas W., Jr., Navy (7)
Murray, Clifford K., 5901 Ventnor av., Ventnor (1)
Murray, Edward F., 140 Roseville av., Newark (7)
Murray, Edwin N., 130 N. Broadway, Camden (4)
Murray, Harrold A., 624 Mt. Prospect av.,New'k(7)
Murray, Joseph A., 765 Avenue C, Bayonne (9)
Murray, Norman L., 129 Summit av., Summit (20)
Murto, Thomas V., 117 Buckingham av., Trenton(11)
Musetto, Carmelo A., 135 Cornelia st., Boonton (14)
Mustermann, Otto H., 303 48th st., Union City (9)
Musulin, Nicholas R., 514 Cooper st., Camden (4)
Mutter, Alfred A., 75 Beech st., Arlington (9)
Myatt, Leslie E., 98 N. Pearl st., Bridgeton (6)
Myers, Norman V., 134 Magnolia av., Tenafly (2)

ASSOCIATE MEMBERS

Mann, Hillard, 431 Washington av., Belleville (7)
Marchigiano, Anthony T., 310 Roseville av.,New'k(7)
Marshall, John F., 129 Perry st., Trenton (11)
Mason, James H., IV, 1616 Pacific av., Atl. City (1)
Mattioli, Eli D., Landisville (1)
McAuliffe, Vincent, 910 Queen Anne rd., Teaneck(2)
McConville, Edward B.,1213 Hamilt'n av.,Trent'n(11)
McGrath, John F., Jr., N.J. State Hosp.,Marlboro(13)
Merliss, Harry, 386 Clinton av., Newark (7)
Mersch, Marcel A., 680 Broad av., Ridgefield (2)
Minck, Peter, Jr., E. Saddle River rd., Saddle R. (2)
Mulberg, Harry, 769 Kearny av., Arlington (7)
Murphy, George E., 440 Marshall st., Paterson (16)
Muster, William J., 525 E. Ridgew'd av.,Ridgew'd(16)

N

ACTIVE MEMBERS

Nacca, Carl A., 46 Cleveland st., Orange (7)
Naclerio, Amedeo, 207 Hackens'k st.,Wood-Ridge(2)
Nafash, Shafeek, 1117 16th st., North Bergen (9)
Nafey, Herbert W., 51 Livingston av., N.Br'sw'k(12)
Naidorff, Saul A., 421 W. Seventh st., Plainfield (20)
Nappi, Pasquale E., 433 Mt. Prospect av., Newark(7)
Nash, Alexander E., 30 Forrest av., Verona (7)
Nash, Herman S., 865 S. 11th st., Newark (7)
Nataro, Jerome D., Army (7)
Nataro, Joseph, 172 Littleton av., Newark (7)
Nataro, Maurice, Nichols Gen. Hosp.,Louisv'e,Ky.(7)
Nathanson, Norman, 489 Broadway, L. Branch (13)
Naulty, Charles W., Jr., 403 High st.,P.Amboy(12)
Navizio, Attilio, 29 DeHart st., Morristown (14)
Nayfield, Ronald C., 990 S. Broad st., Trenton (11)
Neal, Charles B., Pine & Third sts., Millville (6)
Neals, Huerta C., 130 Atlantic st., Jersey City (9)
Neander, David G., 57 Chestnut st., Salem (17)
Neiderhoffer, Sydney L., 469 Broadway,L.Branch(13)
Nelson, Clifford H., 200 Isabella av., Irvington (7)
Nelson, Francis B., 275 Orchard st., Westfield (20)
Nelson, Harry, 36 Lupton av., Woodbury (8)
Nemiroff, Nathan, 348 Kinderkamack rd.,Oradell(2)
Nemirow, Martin, 234 Lexington av., Passaic (16)
Nemzek, William P. B., 8 Heddon ter., N.Arl'gton(7)
Nesbitt, Elizabeth, N. J. Train'g Sch'l, Little F'ls (16)
Netz, Lester W., 210 Main st., Hackensack (2)
Neville, Robert J., 547 Main st., Hackensack (2)
Nevins, Thomas F., Jr., 105 Linden av., Westf'd(20)
Nevius, John K., Jr., 1165 Park av., Plainfield (20)
Nevius, William B., 75 Prospect st., E. Orange (7)
Newbury, Graham C., 209 Mlin st., Cranford (20)
Newcomer, Harry S. 1048 Washington st., C. May(5)
Newman, Abraham J., 132 Manhattan av.,Jer.City(9)
Newman, Grace T., 339 Grove st., Montclair (7)
Newman, Julius, 318 Highland rd., S. Orange (7)
Newmann, Monroe E., 24 W. Salem st., Hackens'k(2)
Newmeyer, Joseph, 47 S. 27th st., Camden (4)

Ney, J. Marshall, 443 Baldwin rd., Maplewood (7)
Nichols, Stanley H., 517 Broadway, L. Branch (13)
Nickman, E. Harrison, 1616 Pacific av., Atl. City (1)
Nicol, Lorenz C., 360 Larch av., Bogota (2)
Nicola, Toufick, 96 Gates av., Montclair (7)
Nieman, Solomon Z., 191 Liv'gston av.,N.Br'sw'k(12)
Niemiera, Alexander K., 509 State st., P. Amboy (12)
Niemtzow, Frank, 55 E. Main st., Freehold (13)
Nimaroff, Harold, 152 Market st., Passaic (16)
Nittoli, Rocco M., 660 E. Jersey st., Elizabeth (20)
Nobile, James J., 913 Hudson st., Hoboken (9)
Noll, Louis, 1383 Clinton av., Irvington (7)
Nonziato, Frank A., 50 Centre st., Trenton (11)
Normand, Alphonse F., 267 High st., P. Amboy (12)
Norton, James F., 58 Kensington av., Jersey City (9)
Notkin, Meyer, 559 Broadway, Paterson (16)
Noto, Philip, 158 Washington pl., Passaic (16)
Novak, John G., 111 Clinton av., Newark (7)
Novello, Joseph A., 641 Second av., Elizabeth (20)
Novich, Max, 1484 Liberty av., Hillside (7)
Nussbaum, Harvey E., 695 Clinton av., Newark (7)
Nussbaum, Joseph, 321 Elmora av., Elizabeth (20)
Nussbaum, Nathan, 237 Lakeview av., Clifton (16)
Nutzel, Leon P., Army (7)
Nuzzolo, Charles A., 400 Park av., Paterson (16)
Nyiri, William A., 863 S. 12th st., Newark (7)
Nyvall, Pierre J., Barnegat (15)

ASSOCIATE MEMBERS

Neibrief, Milton N., 1 Johnson av., Newark (7)
Nelson, Richard A., 763 Broad st., Newark (7)
Nichols, Joseph E., 144 Harrison st., E. Orange (7)
Novak, Edward J., 61 Green st., Woodbridge (12)
Nowak, Emil, 738 Market st., Paterson (16)

O

ACTIVE MEMBERS

Oberlander, Gertrude, 866 S. 13th st., Newark (7)
Obert, J. Edwin, Main st., New Egypt (15)
Obester, Gabriel E., 640 N. Broad st., Elizabeth (20)
O'Brian, Dennis M., 154 Lexington av., Passaic (16)
O'Brian, E. Raymond, 831-B E. Front st.,Plainf'd(20)
O'Brian, Jeremiah H., 661 Main av., Passaic (16)
O'Brien, Edwin J., Jr., 503 Park av., Plainfield(20)
O'Brien, John R., 174 Bowers st., Jersey City (9)
Ockene, Abraham, 2415 Palisade av., Union City (9)
O'Connell, James J., 116 Liv'gston av.,N.Br'sw'k(12)
O'Connor, Bernard A., 47 Central av., Newark (7)
O'Connor, Dennis F., 27 S. Kingman rd., S. Or. (7)
O'Connor, John J., 2124 New York av.,Union City(9)
O'Connor, Michael J., 98 Shanley av., Newark (7)
O'Connor, Paul A., 342 Roseville av., Newark (7)
O'Crowley, Clarence R., 31 Lincoln Park, Newark(7)
Oderr, Charles, 121 S. Euclid av., Westfield (20)
Oesterreicher, Desider, 427 Bergen av., Jer City (9)
Oestreicher, Harry, Picatinny Arsenal, Dover (14)
Offenkrantz, Freder'k M., St. Joseph's H.,Pat'rs'n(16)
Ogden, Andrew E., 1829 Greenwood av., Trenton(11)
Ogden, Michael A., 20 Grove st., Passaic (16)
O'Grady, Michael J., 197 Nutley av., Nutley (7)
O'Hanlon, George, Medical Center, Jersey City (9)
Okin, Irving, 165 Passaic av., Passaic (16)
Olini, Joseph J., 30 W. Market st., Newark (7)
O'Lini, Louis J., 30 W. Market st., Newark (7)
Olpp, Archibald E., 1516 Bergenline av., Union C.(9)
Olpp, John L., 49 Ivy lane, Tenafly (2)
Olson, Vendela E., 100 Prospect av., Hackensack (2)
Ondovchak, M. Frederic, Kings Hwy.,Mt. Ephr'm(4)
O'Neill, Charles L., 671 Broad st., Newark (7)
O'Neill, Charles L., Jr., 671 Broad st., Newark (7)
O'Neill, Joseph F., 41 E. Broad st., Hopewell (11)
Onorato, Vincenzo R., 66 Christopher st.,Montcl'r(7)
Opdyke, Gordon M., 52 Claremont av., Verona (7)
Openchowski, Mieczyslaw,399Mt.Prosp't av.,N'w'k(7)
Opfermann, John L., 167 Bay av., Highlands (13)
Opper, Philip, 606 E. 26th st., Paterson (16)
Oram, Joseph H., 495 Broadway, Paterson (16)
Oransky, Marvin, 10 38th st., Irvington (7)
Oren, Hyman, 74 Perry st., Park Ridge (2)
Orloff, Samuel, 59 Girard pl., Newark (7)
Ormsby, Thomas J., 1180 Raymond blvd., Newark(7)
Ornaf, I. Edward, 1145 Thurman st., Camden (4)
O'Rourke, James J., 871 Stuyvesant av., Trenton(11)
Orris, Harold J., 172 Lyons av., Newark (7)
Ortolano, James J., 911 Washington st., Hoboken(9)
Orton, Foster, 196 Elm av., Rahway (20)
Orton, George L., 196 Elm av., Rahway (20)
Orton, Henry B., 224 Delavan av., Newark (7)
Orton, Stuart, 196 Elm av., Rahway (20)
Osborn, A. Downey, 415 Fourth av., Belmar (13)
Osborn, Edward G., 3194 Alabama rd., Camden (4)
O'Shea, John J., 2200 Palisade av., Weehawken (9)
Osher, Morris M., 100 Martine av., N., Fanwood(20)
Oshrin, Henry, 7500 Bergenline av., N. Bergen (9)
Ostrowski, Sigismund J., 265 Broad st., Bloomfi'd(7)
O'Sullivan, John R., 11 Quincy av., Arlington (9)
Ott, Franklin B., 999 Clinton av., Irvington (7)
Outwin, Richard N., 46 Maple st., Maplewood (7)
Owen, Philip, 973 Salem rd., Union (20)
Ozier, Charles W., 223 Autumn st., Passaic (16)

P

ACTIVE MEMBERS

Pacicco, Michele, 609 Pavonia av., Jersey City (9)
Padden, Aloysius F., 335 Orchard ter., Bogota (2)
Paddock, Royce, 965 Broad st., Newark (7)
Padney, Edward V., 452 Jersey av., Jersey City (9)
Pagano, Peter, 324 Franklin av., Ridgewood (2)
Pagliughi, John J., 1915 Palisade av., Union City(9)
Paisley, Ellwood S., 501 Wt. Horse Pk.,Had'nHts.(4)
Palazzo, William L., Holy Name Hosp., Teaneck (2)
Palin, George, 27 A Wavecrest av., Winfield (20)
Palladino, Alessandro, 86 W. Com'rce st.,Br'get'n(6)

Pallen, Conde deS., 6 Passaic st., Rochelle Pk. (2)
Palma, Nicholas, 116 17th av., Paterson (16)
Palmer, Francis R., 220 Lexington av., Passaic (16)
Palmer, Gideon H., 81 Evergreen pl., East Orange(7)
Palmer, Harris H., 6 Willow Gr.Pkwy.,Westfi'd(20)
Palmer, Henry S., 128 Court st., Newark (7)
Palmeri, Anthony, 111 Chelsea rd., Clifton (16)
Palmisano, Vincent S., 13 W. 6th av., Runnemede(4)
Palumbo, Vincent A., 22nd & Blvd., Kenilworth (20)
Panigrosso, Louis R., 455 Lawrie st., P. Amboy (12)
Panitch, William, 90 Baldwin av., Newark (7)
Pannullo, John N. P., 266 Van Buren st., Newark(7)
Pansy, Abraham A., 12 Jackson st., South River (12)
Pantaleone, Joseph, 504 Hamilton av., Trenton (11)
Panzer, Norman, 615 High st., Newark (7)
Parell, George C., 275 S. 7th st., Newark (7)
Parent, Sol, 89 Lincoln Park, Newark (7)
Paris, William, 518 E. 25th st., Paterson (16)
Parker, James W., 175 Shrewsbury av., R. Bank(13)
Parker, John E., 385 Park av., Orange (7)
Parker, Paul, 72 N. Clinton av., Trenton (11)
Parkes, Morey, Gallanger G.Hosp.,Wash'gt'n,D.C.(7)
Parry, Allen A., 54 Green av., Madison (14)
Parry, Antoinette R., 54 Green av., Madison (14)
Parry, Oliver K., 601 Bangs av., Asbury Park (13)
Parsonnet, Aaron E., 3 Madison av., Newark (7)
Parsonnet, Eugene V., 89 Lincoln Park, Newark (7)
Pascall, Thomas M., 197 Lincoln av., Newark (7)
Pasquale, Thomas L., 92 High st., Orange (7)
Pasternack, Elroy, 71 Lexington av., Passaic (16)
Pastore, Mario, East av. & Grape st., Vineland (6)
Patella, Fulvio, 324 Broadway, Paterson (16)
Patterson, Isaac N., 26 Station av., Westville (8)
Patti, Frank A., 241 Broad av., Leonia (2)
Patton, Paul B., 3 Winding Way rd., Morris P. (14)
Pattyson, Ralph A., 144 Harrison st., East Orange(7)
Paul, Abraham, 4901 Atlantic av., Ventnor (1)
Paul, George A., 788 Lyons av., Irvington (7)
Paul, H. Carl, 30 Westville av., Caldwell (7)
Pauly, Arthur N., 297 W. Summit st., Somerville (18)
Pauncz, Arpad, Veterans Administration, Lyons(18)
Pavia, John R., 48 Mountainview av., East Orange(7)
Payne, Douglas, 501 Grand av., Asbury Park (13)
Payne, Guy, Old Stonehouse Farm, Canaan,N.Y.(7)
Payne, Guy, Jr., 56 S. Prospect st., Verona (7)
Pearl, Sydney S., 837 Park av., Elizabeth (20)
Pearlstein, Frank, 325 60th st., West New York (9)
Pecora, Carmine L., 212 Wash'gton st.,TomsRiv.(15)
Pecora, Samuel, 599 Mt. Prospect av., Newark (7)
Pedevill, Joseph R., 232 Highland av., Palisades P.(2)
Pedicini, Joseph L., 588 S. 10th st., Newark (7)
Pedrick, William W., 11 West st., Glassboro (8)
Peer, Lyndon A., 15 Washington st., Newark (7)
Pegau, Paul M., 246 Briar Hill lane, Woodbury (8)
Pellecchia, Leonard J., 109 Parker st., Newark (7)
Pellegrini, Vincent J., 315 Rochelle av., Roch'leP.(2)
Pellet, Thomas L., Hamburg (19)
Pellicane, Anthony J.,183 Liv'gst'n av.,N.Br'sw'k(12)
Penchansky, Samuel, 719 Avenue C, Bayonne (9)
Penchansky, Samuel J., 847 Avenue C, Bayonne (9)
Pendexter, Sidney E., 11 S. Arlington av., E. Or.(7)
Pendexter, Sidney E., Jr., 11 S.Arl'gton av., E. Or.(7)
Pennington, A. W., 312 Tindall rd.,Wilm'gton,D.(7)
Pennington, John, 101 S. Indiana av.,AtlanticCity(1)
Pentecost, Salvador D., 14 Clarem't av., Maplew'd(7)
Pentel, Louis S., 307 60th st., West New York (9)
Pepe, Salvatore A., 638 Perry st., Trenton (11)
Perelman, Julius S., 94 Shanley av., Newark (7)
Perez, John F., 3403 Pacific av., Atlantic City (1)
Perham, Bertram S., 199 Lorraine av.,U.Montcl'r(7)
Perillo, Louis, 638 Amboy av., Perth Amboy (12)
Perkel, Louis L., 2801 Boulevard, Jersey City (9)
Perlberg, Harry J., 921 Bergen av., Jersey City (9)
Perlman, Maximilian, 188 High st., Nutley (7)
Perlmutter, Irving K., 88 Clinton av., Newark (7)
Permison, Michael, 1735 Stuyvesant av., Union (7)
Pernetti, Anthony M., 400 Park av., Paterson (16)
Perrine, Cornelius C., 668 River rd., Fair Haven (13)
Perrone, Anthony J., 456 Roseville av., Newark (7)
Perrone, Arthur F., 415 60th st., West New York(9)
Perrotta, Anthony J., 42 Harding rd., Red Bank (13)
Perry, Frank L., 39 East av., Woodstown (17)
Persico, Anthony, Columbus av., Harrington Pk. (2)
Pessel, Johannes F., 224 W. State st., Trenton (11)
Peters, Richard C., 963 Park av., Plainfield (20)
Peterson, Walter R., 312 W. State st., Trenton (11)
Petrone, Peter A., 81 Roseville av., Newark (7)
Petry, William, 109 Treacy av., Newark (7)
Pettit, Harry H., 138 Franklin av., Ridgewood (2)
Pettit, Herschel, 807 Wesley av., Ocean City (5)
Pfeffer, Burton B., Veterans Adminis., Lyons (16)
Phelan, Walter F., 124 Chilton st., Elizabeth (20)
Phelps, James E., 203 Park av., Paterson (16)
Phillips, Algernon A., 212 W. Market st., Newark(7)
Phillips, Claude B., 885 Haddon av., Collingswood(4)
Phillips, Ralph S., 27 S. Giles st., Bridgeton (6)
Phillips, Walter, 109 East Palisade av., Englew'd(2)
Piampiano, John, 27 Verona av., Hamburg (19)
Piasecki, Chester A., 585 E. 29th st., Paterson (16)
Picardi, Armand A., 256 Littleton av., Newark (7)
Pickar, Gabriel, 205 N. 2nd av., Highland Park(12)
Pieper, Howard C., 120 Main st., Keyport (13)
Pierson, Carl L., 395 W. State st., Trenton (11)
Pierson, Howard W., Jr., 926 Park av., Plainf'd (20)
Pierson, Joseph R., 10 E. Broad st., Hopewell (11)
Pietri, Raoul, 501 Grand av., Asbury Park (13)
Pignataro, Frank P., 342 Broad st., Red Bank (13)
Pike, Charles E., 4 E. Haddon av., Oaklyn (4)
Pilch, Arthur G., 1 Willard av., Bloomfield (7)
Pilkington, Albert, 117 S. Virginia av., Atl. City (1)
Pilloni, Louis, 91 Beach st., Bloomfield (7)
Pilpel, Michael, 750 E. Front st., Plainfield (7)
Piltz, George F., 153 69th st., Guttenberg (9)
Pinck, Bernard, 161 Lexington av., Passaic (16)
Pinckney, Frank H., 186 South st., Morristown (14)
Pindar, Arthur W., 627 Queen Anne rd., Teaneck (2)
Pindar, Frederick S., 7500 Park av., Woodcliff (9)
Pindar, Irene D., 164 Selvage av., W. Englewood(2)
Pindar, William A., Jr., 59 Bradley av., Bergenf'd(2)
Pinerman, Robert B., 539 W. State st., Trenton (11)
Pink, Solomon H., 21 High st., Butler (16)
Pinks, David K., 895 Bergen av., Hoboken (9)
Pino, Anthony, 196 Irving av., Bridgeton (6)
Pinsky, Harry A., 209 S. 6th st., Camden (4)
Pinto, Joseph, 23 S. Oak av., Mt. Ephraim (4)
Piskorski, Abdon V., 604 Jersey av., Jersey City (9)
Pitman, Mason W. H., 17 Ross st., Somerville (18)
Pittman, Allen R., N. J. State Hosp., Trenton (11)
Pizzi, Francis W., 205 Park av., Orange (7)
Pizzi, Mario V., 205 Park av., Orange (7)
Plain, Irving H., 88 Clinton av., Newark (7)
Plavin, Nathan J., 8010 Boulevard, North Bergen (9)
Plinke, Fritz W., 663 Main av., Passaic (16)
Plume, Clarence A., Main st., Succasunna (14)
Podell, A. Alfred, 51 E. Front st., Red Bank (13)
Pogge, Raymond C., 816 Central st., Plainfield (20)
Pogoloff, Samuel H., 269 N. First av., Manville (18)
Pogue, Elbert H., 168 Madison av., Elizabeth (20)
Pols, John, 67 Scotland rd., South Orange (7)
Poleshuck, Rubin, 100 Hollywood av., Hillside (7)
Policastro, Nelson C., 378 Union st., Hackensack (2)
Polizzotti, Joseph L., 193 Park av., Paterson (16)
Polk, Charles C., 114 E. Seventh av., Roselle (20)
Pollack, Louis, 2052 Morris av., Union (20)
Pollack, Roy, 715 Palisade av., Cliffside Park (2)
Pollack, Sol, 1906 Boulevard, Union City (20)
Pollard, William E., 194 Nassau st., Princeton (11)
Poller, Frederick K., 681 Stuyvesant av., Irv'gton(7)
Polls, Nicholas L., 642 High st., Newark (7)
Pollock, Samuel L., 730 Prospect st., Maplewood (7)

Pollock, Theodore, 64 Grove st., Passaic (16)
Polow, Benjamin, 200 Clinton av., Newark (7)
Polowe, David, 555 E. 27th st., Paterson (16)
Pomerantz, Samuel, 1551 Maple av., Hillside (7)
Pomeranz, Raphael, 31 Lincoln Park, Newark (7)
Pons, Carlos A., 501 Grand av., Asbury Park (13)
Pontery, Herbert B., 89 Bowers st., Jersey City (9)
Potekhen, George P., 1232 Park av., Plainfield (20)
Potter, Benjamin P., 821 Bergen av., Jersey City (9)
Potter, Charles W., 184 Belvidere av., Wash'gt'n(21)
Potter, Ellen C., 301 W. State st., Trenton (11)
Potter, Raymond T., 144 Harrison st., E. Orange (7)
Pottinger, William E., 6 Altamont ct.,Morristown(14)
Powell, Robert J., 410 N. Ohio av., Atlantic City (1)
Powis, Ethel M., 845 W. State st., Trenton (11)
Poyas, Morton L., 730 W. State st., Trenton (11)
Prager, Bert A., 511 Main st., Chatham (14)
Prather, Charles G., 25 Westwood av., Westwood (2)
Prather, John W., 155 Washington av., Dumont (2)
Pratt, Arthur G., 516 Cooper st., Camden (4)
Prazak, Beatrice, 1024 E. Jersey st., Elizabeth (20)
Preece, John D., 192 W. State st., Trenton (11)
Pregnall, James P., 501 Grand av., Asbury Park (13)
Preis, Edwin E.. 3300 Federal st., Camden (4)
Preminger, Max, Wav'ly Hills San.,Wav'lyH.,K.(20)
Prestifilippo, Silvestro, 105 Glenridge av.,M'tcl'r(7)
Preston, Perry B., 12 Palm st., Newark (7)
Price, H. Preston, 317 Hamilton rd., Ridgewood (9)
Price, Henry S., Jr., 150 Frazer av., Collingswood(4)
Prince, Robert A., 567 Broadway, Paterson (16)
Prince, Samuel, 7702 Park av., North Bergen (9)
Principato, Roberto, 402 Walnut st., Camden (4)
Proctor, Francis E., 332 W. State st., Trenton (11)
Proctor, Jesse E., 15 N. 13th st., Newark (7)
Protzman, Thomas B., 314 Engle st., Englewood (2)
Proudfoot, Perry A., 527 Walnut st., Roselle (20)
Provenzano, Samuel, 317 S. 10th st., Newark (7)
Provisor, Benjamin, 271 Lexington av., Passaic (16)
Prunetti, Carmen, 311 Chestnut av., Trenton (11)
Puff, Robert C., N. Broad st., Woodbury (8)
Puller, Hyman, 217 Chestnut st., Roselle (20)
Purcell, Ernest F., 800 Stuyvesant av., Trenton (11)
Purdy, Charles H., 35 Highland av., Jersey City (9)
Putter, Eric, 180 N. Main st., Milltown (12)
Pyle, Louis A., 89 Fairview av., Jersey City (9)

ASSOCIATE MEMBERS

Padovano, Joseph, 517 Roseville av., Newark (7)
Paret, Frank L., 108 Church st., New Brunsw'k(12)
Parker, James W.,Jr., 179 Shrewsb'y av.,R.Bank(13)
Pasquariello, Peter, 975 E. 25th st., Paterson (16)
Philo, Seymour S., 849 Hamilton av., Trenton (11)
Piegari, Felix H., 111 Mt. Pleasant av., Newark (7)
Podkul, Theodore, 883 Brunswick av., Trenton (11)
Purcell, Ernest F.,Jr.,2630Not'gh'm wy.,Merc'rv'e(11)

Q

ACTIVE MEMBERS

Quackenbos, Harrie M.,State Colony,Lynchb'g,V.(11)
Quad, Clifford W., 52 Northfield av., West Orange(7)
Quaglieri, Charles, 931 Washington st., Hoboken(9)
Quigley, Frederic J., 543 45th st., Union City (9)
Quigley, Joseph A., 8 Ziegler Tract, Penns Grove(17)
Quinn, Edward D., 323 Belleville av., Bloomfield (7)
Quinn, John J., 921 Bergen av., Jersey City (9)
Quinn, Norman J., 3303 Pacific av., Atlantic City (1)
Quirk, Martin A., 69 W. Front st., Red Bank (13)

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ACTIVE MEMBERS

Raab, Michael, 250 Lexington av., Passaic (16)
Raban, Reginald J., 1185 Yorkship sq., Camden (4)
Rabinowitz, Jacob H., 35 Randolph pl., Newark (7)
Raccuia, Vincent, 431 59th st., West New York (9)
Rachunis, Michael, 5th & Riverside avs.,Roebling(11)
Racz, George, 22 Hardenberg st., New Brunsw'k(12)
Rader-Hoheb, Katherine, 5 Lincoln av., Ruth'rf'd(2)
Radest, Louis J., 347 Broadway, Paterson (16)
Rados, Andrew, 31 Lincoln Park, Newark (7)
Raffetto, Joseph F., 601 Bangs av., Asbury Pk.(13)
Ragany, Joseph, V.A. Hosp., Wilmington, Del. (11)
Rainey, Willard G., 34 Bayard lane, Princeton (11)
Ram, Nathan H., 38 Park av., Caldwell (7)
Rampona, Joseph M., 272 Nassau st., Princeton(11)
Rampond, James R., 579 Springdale av., E. Or. (7)
Ramsey, F. Muriel, 310 E. Pine st., Millville (6)
Randazzo, Anton P., 82 Prospect st., Passaic (16)
Ranson, Briscoe B., Jr., 120 S. Harrison st.,,E. Or.(7)
Rapalski Adam J., Army (7)
Rapp, Robert F., 994 Haddon av., Collingswood (4)
Rappaport, Doris I., 1363 Sussex rd., W. Englew'd(2)
Rasin, Carl, 158 Lexington av., Passaic (16)
Raso, Frank L., 1218 Central av., Union City (9)
Rath, Morris, 140 Fourth av., East Orange (7)
Rathgeber, Charles F., 18 William st., E. Orange(7)
Rathauser, Frank, 399 W. State st., Trenton (11)
Rathmell, Thomas K., Mercer Hospital, Trenton(11)
Rattenne, Edward, 540 Mt. Prospect av., Newark(7)
Rauschenbach, Paul E., Jr., 612 E.29th st.,Pat's'n(16)
Ravitz, Samuel F., Army (7)
Rawitz, Sidney B., 42 Chancellor av., Newark (7)
Re, Natale M., 1003 Dearborn rd., Palisade (2)
Read, Hilton S., 5407 Atlantic av., Ventnor (1)
Read, Jessie D., 519 Lenox av., Westfield (20)
Read, William T., Jr., Cooper Hospital, Camden (4)
Reading, H. Eugene, 535 E. 29th st., Paterson (16)
Reale, Frank P., 630 E. Second st., Plainfield (20)
Reale, Nicholas P., Brooks blvd., Manville (18)
Reason, John J., 612 Roosevelt av., Carteret (12)
Records, Carl J., Franklin & Sewell avs.,Cape May(5)
Reeve-Allen, Jane, 42 Gordonhurst av., U. M'tcl'r(7)
Reeves, Ernest, 195 Lexington av., Passaic (16)
Reich, Abraham L., 31 Lincoln Park, Newark (7)
Reich, Henry, 89 Lincoln Park, Newark (7)
Reich, Jerome J., 1500 N. Broad st., Hillside (20)
Reich, Mortimer, 705 Elizabeth av., Newark (7)
Reich, Samuel B., 286 Union st., Hackensack (2)
Reid, Erwin W., 125 Marsellus pl., Garfield (2)

Reilly, Christopher J., 331 13th av., Newark (7)
Reilly, David F., 44 Prince st., Elizabeth (20)
Reilly, John, Jr., 222 Elizabeth av., Elizabeth (20)
Reilly, John T., 18 DeHart st., Morristown (14)
Reilly, John V., 520 Sanford av., Newark (7)
Reilly, Joseph, 600 Newton av., Oaklyn (4)
Reilly, Raymond, 4912 Bergenline av., W. N. Y. (9)
Reilly, Thomas F., 127 Union av., Clifton (16)
Reinfeld, Abraham G., 354 Clinton av., Newark (7)
Reingold, Alexander, 221 Garden st., Hoboken (9)
Reinhard, Louis, 2627 Pacific av., Atlantic City (1)
Reinhardt, Warren I., 276 Springdale av., E. Or. (7)
Reinhold, H. E., 441 W.Englewood av.,W.Engl'w'd(2)
Reinhorn, Abraham J., 597 E. 27th st., Paterson (16)
Reinkraut, Arthur D., 175 Broadway, Passaic (16)
Reisinger, Paul B., 369 W. State st., Trenton (11)
Reissman, Erwin, 31 Lincoln Park, Newark (7)
Reitman, Norman, 155 Livingston av.,N.Br'sw'k(12)
Reitnauer, John S., 6 Standish ct., Tenafly (2)
Relyea, George M., 129 Summit av., Summit (20)
Remondelli, Raphael E., 216 Littleton av., New'k(7)
Renna, Francis, 20 Morris av., Morristown (14)
Renner, Clara C., Blawenburg (18)
Renzulli, Francesco, 228 S. Seventh st., Newark (7)
Repici, Anthony J., 212 Haddon av., Haddonfield(4)
Repta, Stephen, 2165 Morris av., Union (20)
Resch, Henry U., 185 Liberty st., Bloomfield (7)
Resnick, Nathan, 205 Market st., Trenton (11)
Ressetar, Michael, 455 Lexington av., Clifton (16)
Restaino, Charles F., 465 Parker st., Newark (7)
Rettig, Isidor L., 36 Milford av., Newark (7)
Reyner, Daniel C., 2703 Pacific av., Atlantic City (1)
Reynolds, Donald G., 64 W| Main st., Freehold (13)
Reznikoff, Leon, Hudson Co. Mental H., Sec'c's(9)
Rhoads, S. Creadick, 104 Station av., Westville (8)
Rhodes, Harry, Jr., 171 Terrace av., Hasbr'ckHts.(2)
Rhone, David S., 1202 Haddon av., Camden (4)
Ribbans, Robert C., 63 Central av., Newark (7)
Riccobono, Cosmo S., 334 Park av., Paterson (16)
Rich, Charles, 191 Littleton av., Newark (7)
Rich, Robert E., 191 Littleton av., Newark (7)
Rich, Wallace E., Essex Co. Hosp., Cedar Grove(7)
Richards, Ernest W., 374 DeWolf pl., Hackensack(2)
Richardson, Charles A., Closter Dock rd., Closter(2)
Richardson, Marvin T.,177 S.Liv'gst'n av.,Liv'gst'n(7)
Richlan, Alfred, 181 Roseville av., Newark (7)
Richlin, Padie, 118 Johnson av., Newark (7)
Rieck, Allan, 507 S. Shore rd., Pleasantville (1)
Riegert, Louis C., 808 Kings Hwy., Hadd'n Hts. (4)
Rieman, Aloysius P., 3566 Boulevard, Jersey City (9)
Rieman, Francis E., 3564 Boulevard, Jersey City (9)
Riffin, Irving M., 419 Park st., Up. Montclair (7)
Rifici, Anthony L., 1010 Grand av., Asbury Park(13)
Rigeron, D. George, 160 Willard av., Bloomfield (7)
Riggins, Edwin N., 161 N. Arlington av., E. Or. (7)
Riggs, Vincent J., 295 N. Arl'gt'n av., E. Or. (7)
Riley, Philetus H., 181 South st., Morristown (14)
Rineberg, Irving E., 137 Liv'gst'n av., N.Br'sw'k(12)
Ringe, Charles L., Jr., Blair pl., Blairstown (21)
Ringewald, Robert H., 284 Broad av., Leonia (2)
Rinzler, Elliot, 211 Roseville av., Newark (7)
Rinzler, Harry G., 127 Van Houten av., Passaic(16)
Rinzler, Harvey, 614 Main st., Toms River (15)
Riordan, John P., 40 Midland av., Arlington (9)
Ripley, E. Warren, 21 Plymouth st., Montclair (7)
Rise, Wilson S., 1616 Pacific av., Atlantic City (1)
Ristine, Edwin R., 300 Broadway, Camden (4)
Rita, James J., 235 S. Clinton av., Trenton (11)
Ritota, Michael C., 85 Stuyvesant av., Newark (7)
Ritter, John J., Box 86, Plainfield, Mass. (16)
Rizzo, Ettore G., 352 Van Houten st., Paterson (16)
Rizzolo, Edward M., 523 Union av., Belleville (7)
Robbin, Lewis, 18 Clinton pl., Newark (7)
Robbins, Charles M., 31 Lincoln Park, Newark (7)
Robbins, Eugene, 108 Glen av., Maplewood (7)
Robbins, Morris A., 39 W. Main st., Columbus (3)
Roberts, Allison H., 26 S. Ninth st., Newark (7)
Roberts, Charles D., 188 Sherwood pl., Englew'd (2)
Roberts, David C., 3 Glen Oaks av., Summit (7)
Roberts, Joseph E., Jr., 403 Cooper st., Camden (4)
Roberts, Richard H., 53 Kings Hwy.,W.,Had'nf'd(4)
Roberts, William A., 11 Park av., Caldwell (7)
Robertson, Eugene V., 17 Arl'gton av.,H'wth'ne(16)
Robertson, Euston S., 500 Belgrove dr., Arlington (7)
Robertson, Grace M., 515 W. Seventh st., Pl'nf'd(20)
Robie, Theodore R., 144 Harrison st., E. Orange (7)
Robinson, Aaron J., 1757 S. Broad st., Trenton (11)
Robinson, Anne W., 117 Outer dr., Oak Ridge,T.(20)
Robinson, Ernest A., 149 Atkins av., Asbury P. (13)
Robinson, Irving W., 835 W. State st., Trenton (11)
Robinson, Louis H., 31 Lincoln Park, Newark (7)
Robinson, William A., 62 Main av., Ocean Grove(13)
Rocco, Frank, 729 Summer av., Newark (7)
Rocco, John, 729 Summer av., Newark (7)
Rocco, Leo C., 75 Maple av., Red Bank (13)
Rodi, Louis M., 412 Bellevue av., Hammonton (1)
Rodman, E. Warren, 503 Cooper st., Beverly (3)
Roemer, Jacob, 591 E. 27th st., Paterson (16)
Rogers, Dorothy M., 50 Cooper st., Woodbury (8)
Rogers, Herman C., Bonnie Burn San.,Scotch Pl.(20)
Rogers, Laurence H., Donnelly M. Hosp.,Tr'nt'n(11)
Rogers, Robert H., 49 Ninth av., Newark (7)
Roh, Robert F., 198 Clinton av., Newark (7)
Romano, Anthony M., 159 Westervelt av.,Tenafly(2)
Romano, Frank, 207 Front st., Dunellen (12)
Romano, Michael J., 2 Arlington pl., Radburn (16)
Romano, Patrick J., 310 Central av., Orange (7)
Rona, Maurice, 10 Kirkpatrick st., N. Br'nsw'k (12)
Roop, William O., 522 S. Shore rd., Absecon (1)
Rosamilia, Ralph E., 480 N. Seventh st., Newark(7)
Rose, Francis L., 511 Cooper st., Camden (4)
Rose, Salvatore J., 242 Ivy ct., Orange (7)
Rose, William G., 232 Stockton st., Hightstown (11)
Roseman, Herman I., 581 Ridgewood av., Glen R. (7)
Rosen, Charles D., 115 S. Munn av., E. Orange (7)
Rosen, Charles E., 321 23rd st., Union City (9)
Rosen, Emanuel, 692 High st., Newark (7)
Rosen, Frank L., 33 Johnson av., Newark (7)
Rosen, Herbert J., 42 Hudson st., Dover (14)
Rosen, Sol, 214 N. Second st., Millville (6)
Rosenbaum, Samuel X., 261 Main st., W. Orange(7)
Rosenberg, Albert B., 120 Crescent av., Plainf'd (9)
Rosenberg, Alvin A., 22 High st., Morristown (14)
Rosenberg, Hyman, 318 Cooper st., Camden (4)
Rosenberg, Jacob, 692 Bergen av., Jersey City (9)
Rosenberg, L. Charles, 11 Murray st., Newark (7)
Rosenberg, Lillian M., 334 Bloomfi'd av.,Montcl'r (7)
Rosenberg, Louis, 1616 Pacific av., Atlantic City(1)
Rosenberg, Max, 1585 Wyndmoor av., Hillside (7)
Rosenberg, Norman, 10 Lincoln av., Highland P.(12)
Rosenblatt, Max B., 150 Westfield av., Elizabeth(20)
Rosenblatt, Sidney, 1904 Pacific av., Atlantic City(1)
Rosenstein, Jacob L., 568 Bergen av., Jersey City(9)
Rosenstein, Saivel L., 2120 Springf'd av.,Vauxh'l(20)
Rosenthal, Abraham, 43 Third av., Atl. Highl'ds(13)
Rosenthal, Alfred E., 79 W. 32nd st., Bayonne (9)
Rosenthal, Arnold J., 41 Renner av., Newark (7)
Rosenthal, Oscar J., 54 Van Ness pl., Newark (7)
Rosenthal, Sydney, 200 Clinton av., Newark (7)
Rosiello, Louis E., 712 Wood st., Vineland (6)
Rosner, Edwin, 814 Haddon av., Collingswood (4)
Ross, Bernard, 30 E. Passaic st., Maywood (2)
Ross, Ira S., 190 Clinton av., Newark (7)
Ross, Peter W., 655 Main av., Passaic (16)
Rossi, Bartolomeo, 31 W. Main st., Bound Br'k (18)
Rossi, Gene, 148 W. Franklin st., Bound Brook (18)
Rossi, John R., 119 W. 36th st., Bayonne (9)
Rosso, John D., 194 Nassau st., Princeton (11)
Rost, Adolf S., 461 Mountainview av., Orange (7)
Roston, Mark A., 63 Hansbury av., Newark (7)

Roth, Daniel B., 836 Garrison av., Teaneck (2)
Roth, Ferdinand L., 98 S. Munn av., East Orange(7)
Rothberg, Moses, 438 59th st., West New York (9)
Rothenberg, Friedrich, 395 Ellison st., Paterson (16)
Rother, Carl, 20 48th st., Weehawken (9)
Rothfuss, C. Howard, 574 Rahway av.,W'dbr'ge(12)
Rothgesser, Jerome C., 14 Leslie st., Newark (7)
Rothhouse, Burnet, 31 Lincoln Park, Newark (7)
Rothman, Sidney, 870 Stuyvesant av., Trenton (11)
Rothschild, Daniel L., 31 Lincoln Park, Newark (7)
Rothschild, Karl, 149 Livingston av., N. Br'sw'k(12)
Rotondi, Leonard J., Army (7)
Rowan, Henry M., 224 W. State st., Trenton (11)
Rowen, Manuel J., 133 W. Jersey st., Elizabeth (20)
Rowland, John H., 159 New st., New Brunsw'k (12)
Rowohlt, George O., 150 E. Madison av., Dumont(2)
Roy, Bert W., 25 Hamburg av., Sussex (19)
Roy, Joseph N., 95 17th av., Paterson (16)
Roylance, F. Dean, Jr., St. Nicholas av., Haw'th(2)
Rozett, Oscar, 19 Prospect st., Summit (20)
Rozsa, Stephen, 837 S. 11th st., Newark (7)
RuBacky, Joseph F. A., 61 Passaic av., Passaic (16)
Rubba, Russell R., 21 Horton st., Hammonton (1)
Rube, Joseph A., 145 Prospect st., Ridgewood (2)
Rubens, Otto, 153 E. Blackwell st., Dover (14)
Rubenstein, Robert, 2758 Boulevard, Jersey City (9)
Rubin, Abraham A., 240 Holmes st., Belleville (7)
Rubin, Adrian D., 401 First av., Asbury Park (13)
Rubin, David, 200 E. Jersey st., Elizabeth (20)
Rubin, Harold, 601 Grand av., Asbury Park (13)
Rubin, Jacob S., 505 Fourth av., Asbury Park (13)
Rubin, Sidney, 170 Hawthorne av., Newark (7)
Rubin, William, 105 Carroll pl., New Brunswick(12)
Rubino, Nicholas M., 235 Roseville av., Newark (7)
Ruby, Victor M., 325 Atlantic av., Atlantic City (1)
Ruccia, Arthur, 107 Clifton av., Newark (7)
Rucker, William C., 408 Main st., Hackensack (2)
Rudolph, John P., 108 W. Maple av., Merchantv'e(4)
Rudomanski, Victor, 103 Duke st., Kearny (7)
Ruffer, Ralph A., 619 15th st., Union City (9)
Ruggieri, Pasquale, 803 Elmer st., Vineland (6)
Rullman, Walter A., 58 W. Front st., Red Bank (13)
Rumage, William T., 513 Sanford av., Newark (7)
Rumsey, Wm. L., Jr., 1336 North av., Elizabeth (20)
Rundlett, Emilie V., 79 Prospect st., Jersey City(9)
Runnells, John E., Bonnie Burn San.,Sc'ch Pl'ns(20)
Runyan, William J., 106 Broad st., Bloomfield (7)
Runyon, Laurence P., 80 Somerset st.,N.Br'sw'k(12)
Ruocco, William B., 416 River st., Paterson (16)
Ruoff, Andrew C., 2414 New York av., Union City(9)
Ruoff, Andrew C., III, 24 Cleveland av.,Rivervale(2)
Rush, Martin R., 326 Broad st., Red Bank (13)
Rusin, Michael, 81 Monroe st., Garfield (2)
Russell, David L., 690 Bergen av., Jersey City (9)
Russell, Karl S., Taunton Blvd., Marlton (4)
Russell, Marie E., 583 Haddon av., Collingswood (4)
Russillo, Philip, 155 Clerk st., Jersey City (9)
Russo, Dominic T., 51 E. Somerset st., Raritan (18)
Russomanno, Paul, 497 Mt. Prospect av., Newark(7)
Russomanno, Raymond L., 227 Clifton av.,New'k(7)
Ruttenberg, Louis, 19 Hopkins st., Woodbury (8)
Ruvane, Joseph J., 2787 Boulevard, Jersey City (9)
Ryan, Lawrence W. F., 922 Haddon av.,Coll'gsw'd(4)
Rydwin, Chester, 137 Grand st., Jersey City (9)
Ryley, Harold W., 1 Lincoln pl., E. Rutherford (2)
Ryman, Merlin T., 5 Dunbar st., Chatham (14)

ASSOCIATE MEMBERS

Rachal, Hurve J., 393 Roseville av., Newark (7)
Ritter, Morton D., 1616 Pacific av., Atlantic City (1)
Robinson, Douglas H., N. J. State Hosp.,Trenton(11)
Rosen, Samuel C., 117 Dewey pl., Atlantic City (1)
Rosenbauer, Howard J., 120 Clinton pl.,Hack'ns'k(2)
Rosenberg, Marvin, 174 Gregory av., Passaic (16)
Rosner, Francis, 653 Maywood av., Maywood (2)
Rubin, Samuel, 401 First av., Asbury Park (13)
Ruggio, Joseph, 8 Hedden ter., N. Arlington (7)

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ACTIVE MEMBERS

Sabarese, Theodore C., 122 Marsellus pl., Garfi'd(16)
Sabini, Cecil F., 603 Jefferson st., Hoboken (9)
Sacco, Anthony G., 2200 New York av.,Union City(9)
Sachs, Fred, 48 Warner av., Jersey City (9)
Sachs, Wilbert, 921 Bergen av., Jersey City (9)
Sackin, Stanley, 834 W. State st., Trenton (11)
Sachs-Wilner, Arthur, 225 W. State st., Trenton(11)
Sachs-Wilner, Erwin P., 225 W.State st.,Trenton(11)
Saco, Louis S., 922 Main st., Paterson (16)
Sadoff, Joseph, 504 Westminster av., Elizabeth (20)
Sadusk, Joseph F., Jr., Pentagon B.,W'h'gt'n, D.C.(7)
Saffron, Morris H., 292 Paulison av., Passaic (16)
Sager, Harold, 19 W. 22nd st., Bayonne (9)
Sagert, Carl M., 18 Old Wood rd., Morris Pl'ns (14)
Sagi, Ellen I., 376 Elmora av., Elizabeth (20)
Sakowski, John P., 20 W. 22nd st., Bayonne (9)
Sala, Aldo W., 172 Randolph av., Clifton (16)
Saladino, Anthony J., 427 15th st., Union City (9)
Salaky, William L., 387 Neville st., Perth Amboy(12)
Salasin, Samuel L., 511 Pacific av., Atlantic City(1)
Salerno, Louis, 973 Van Houten av., Clifton (16)
Salmon, Edward F., 50 Gifford av., Jersey City (9)
Salmon, George G., Jr., 243 S. Harrison st.,E. Or. (7)
Salsberg, Ralph H., 23 Johnson av., Newark (7)
Salter, Kent, Valley View Sana., Paterson (16)
Salva, Edo J., 17 W. Central blvd., Palisades Pk. (2)
Salvati, Leo H., 275 Orchard st., Westfield (20)
Salvatore, Joseph T., 324 Hamilton av., Trenton (11)
Salway, Benjamin, 321 S. Broad st., Trenton (11)
Salzman, Nathan, 714 Broadway, Paterson (16)
Salzmann, Bertold, Margaret Hague H., Jer. City(9)
Samson, Norman D., 543 Kearny av., Kearny (7)
Samuel, Jerome H., 61 Lincoln Park, Newark (7)
Samuels, S. Lawrence, 1111 Park av., Plainfield (20)
Sandella, Joseph F., 138 Liv'gston av.,N.Br'sw'k(12)
Sandford, Francis R., 30 Academy rd., Caldwell (7)
Sandler, Moses, 2013 Center av., Fort Lee (2)
Sandler, Samuel A., 254 Union st., Hackensack (2)
Sanfacon, Thomas A., 340 Park av., Paterson (16)
Sanford, Marcus E., 27 Ross st., Somerville (18)
Santangelo, Emil L., 313 18th av., Paterson (16)
Santangelo, Joseph A., 218 Grafton av., Newark (7)
Santangelo, Stephen, 461 Jersey av., Jersey City (9)
Santora, Philip J., 361 Roseville av., Newark (7)
Santoro, Anthony, 45 Ward st., Paterson (16)
Santoro, Thomas A., 141 Sanford st., East Orange (7)
Saporito, Archibald R., 119 Ridge rd., N. Arl'gton(7)
Saracino, Frank J., 107 Grand pl., Arlington (7)
Saradarian, Albert V., 921 Bergen av., Jersey City(9)
Sarajian, Aram M., 88 W. Forest av.,W.Englew'd(2)
Sargent, Eva R., 121 Myrtle av., N. Plainfield (18)

Sarla, Michael, 55 Hudson st., Hackensack (2)
Sarno, Anthony, 130 Parker st., Newark (7)
Sarno, John, Army (7)
Sarokhan, Joseph, 771 Madison av., Paterson (16)
Saseen, Charles A., 60 S. Delancey pl., Atl. City (1)
Saslow, Benjamin I., 102 Shanley av., Newark (7)
Saslow, Stella K., 102 Shanley av., Newark (7)
Sasso, Albert, 533 Mt. Prospect av., Newark (7)
Satulsky, Emanuel M., 737 N. Broad st.,Elizab'h(20)
Sauerbrun, Bertram J. L., 681 Newark av.,Eliz.(20)
Savage, Eric D., 120 Prospect st., South Orange (7)
Savel, Lewis E., 73 Shanley av., Newark (7)
Sawyer, Blackwell, 109 Washington st., Toms R.(15)
Sax, Max T., Army (7)
Sbarra, Francesco C. N., 189 Roseville av., New'k(7)
Scala, H. Albert, 212 Garfield av., Jersey City (9)
Scalera, John F., 28 S. Plainfield av.,S. Plainf'd(12)
Scalessa, Mario F. T., 209 Ashland rd., Summit (20)
Scanlan, D. Ward, 15 S. Illinois av., Atlantic City(1)
Scasserra, Benedict B., 163 Nassau st., Princeton(11)
Schaaf, Royal A., 413 Mt. Prospect av., Newark (7)
Schaaf, Royal S., 51 Ellery st., Cambr'ge, Mass. (7)
Schaberg, Frank J., 263 Anderson st., Hackens'k (2)
Schaefer, Kenneth F., 763 Broad st., Newark (7)
Schaeffer, Alan M., 229 Willow st., Delanco (3)
Schafer, Marguerite A.,298 Diam'd Br.av.,H'th'ne(16)
Schaffer, Barney, 10 Van Reyper pl., Belleville (7)
Schaffer, Nathan, 172 S. Arlington av., E. Orange(7)
Schall, Reuben E., Seventh & Elm sts., Camden (4)
Schapiro, Morris, 800 Avenue C, Bayonne (9)
Schectman, Vera, 97 Lyons av., Newark (7)
Scheer, Eli, 885 Queen Anne rd., Teaneck (2)
Scheffler, Wilhelm A. H., 511 Cooper st., Camden (4)
Scheiber, Geza, 769 Kearny av., Arlington (7)
Scheip, James R., II, 343 S. Pleasant av.,Ridgew'd(16)
Schellenger, Edward A. Y., 429 Cooper st.,Camden(4)
Scheller, George A., 65 Old Short Hills rd.,Short H.(7)
Schenk, Joseph R., 1177 Park av., Plainfield (20)
Schenker, Benjamin N., 246 Fifth st., Jersey City (9)
Scher, Maurice A., 137 Lyons av., Newark (7)
Schildkraut, Jacob M., 170 W. State st., Trenton (11)
Schiller, Rosa O., 523 Westfield av., Elizabeth (20)
Schilling, Anthony B., 727 Jefferson av.,Elizab'h(20)
Schillinger, Raphael, 858 Summit av., Westfield(20)
Schimenti, Matteo, 1883 Boulevard, Jersey City (9)
Schirber, Rene G., 6 Kirkpatrick st., N. Br'sw'k(12)
Schirmer, William, 1018 N. Broad st., Hillside (20)
Schiro, S. Robert, 73 Main st., Lodi (2)
Schleifer, Arnold, 10-04 River rd., Fair Lawn (16)
Schlein, August, 707 Park av., Hoboken (9)
Schlein, David, 812 N. Wood av., Linden (20)
Schley, Richard L.,Jr.,114W.Gast'n st.,Sav'n'h,G.(20)
Schlossbach, Theodore, 94 S. Main st., Ocean Gr.(13)
Schlossberg, Ezra, 156 Amsterdam av., Passaic (16)
Schmaier, Sica L., 607 Fifth av., Belmar (13)
Schmidt, Albert F., 521 Crescent Pwy., Sea Girt (13)
Schmidt, Clifford M., 81 Main st., Newton (19)
Schmidt, Walter W., 386 Palisade av., Cliffside P.(2)
Schmukler, Jacob, 16 Johnson av., Newark (7)
Schnee, Isadore M., 586 E. 25th st., Paterson (16)
Schneider, Charles A., 694 Clinton av., Newark (7)
Schneider, Clinton R., 125 N. Green st.,Tuckerton(15)
Schneider, Harry M., 89 Gifford av., Jersey City (9)
Schneider, Leonard, 618 Brinley av., Bradley B. (13)
Schneider, Louis, 874 S. 13th st., Newark (7)
Schneider, Louis A., 412 61st st., West New York(9)
Schnur, Bernard, 731 W. State st., Trenton (11)
Schoenau, Carl W., 15 Highland av., Glen Ridge (7)
Schorr, Herman E., 26 Lincoln Pkwy., Bayonne (9)
Schotland, Clement E., 31 Lincoln Park, Newark (7)
Schrack, Helen F., 216 N. Fifth st., Camden (4)
Schram, William S., 52 Liberty st., Kearny (7)
Schramm, Joseph A., 572 High st., Newark (7)
Schreck, Harry, 192 Roseville av., Newark (7)
Schretzmann, R. C.,1289 Trafalgar st.,W.Englew'd(2)
Schubert, Roy R., 466 Park av., Paterson (16)
Schuchner, William F., 550½ Jersey av., Jer. City(9)
Schuck, Traugott J., 58 Ninth st., Hoboken (9)
Schulman, Jesse, 111 Forest av., Lakewood (21)
Schulsinger, Samuel, 80 Clinton av., Newark (7)
Schulte, Herbert A., 701 Clinton av., Newark (7)
Schults, Anna R., 25 Abington av., Newark (7)
Schultz, Irving A., 31-11 Broadway, Warren Pt. (16)
Schultz, Leo P., 232 Franklin Tnp., Allendale (2)
Schumacher, Evelyn L., 32 Maple av., Morrist'n(14)
Schurman, Francis H. C., 35 Smull av., Caldwell (7)
Schwab, George P., 7914 Boulevard, North Bergen(9)
Schwager, Alfred J., Mercer Hospital, Trenton (11)
Schwartz, Harold, 200 Clinton av., Newark (7)
Schwartz, Henry C., Raritan av., Atco (4)
Schwartz, Jacob R., P.O. Box 305, Fair Lawn (16)
Schwartz, Leo, 301 Harrison st., Passaic (16)
Schwartz, Leon J., 88 Park av., Rutherford (2)
Schwartz, Mortimer L., 636 Stuyves't av.,Irv'gt'n(7)
Schwartz, Ralph A., 675 High st., Newark (7)
Schwartz, Samuel H., 916 Park av., Plainfield (20)
Schwartz, William, 224 Lexington av., Passaic (16)
Schwartzberg, Fred'r'k I., 522 Broadway,Pat'rs'n(16)
Schwarz, Berthold T. D., 2787 Boulevard, Jer. City(9)
Schwarz, Henry J., 8534 Boulevard, North Bergen(9)
Schwarz, John, 83 Highwood ter., Weehawken (9)
Schwarz, Julianna L., 115 Prospect st., Passaic (16)
Schwarz, Leopold, 237 E. Pine av., Wildwood (5)
Schwarzfeld, Harold K., 301 Stuyvesant av.,New'k(7)
Schwarzkopf, George C., 2901 Pacific av.,Atl.City(1)
Schweizer, Roman G., 36 Summit rd., Elizabeth (20)
Scialli, Vincent A., 278 Fourth st., Jersey City (9)
Sciarrillo, Louis F., 105 Newark st., Hoboken (9)
Scielzo, Nicholas F., 369 Park av., Paterson (16)
Scillieri, John, 660 Broadway, Paterson (16)
Sciorsci, Mario, 609 Bloomfield st., Hoboken (9)
Scolamiero, Pasquale, 435 Third av., Newark (7)
Scott, Frederick J., 1 Oak st., Franklin (19)
Scott, Frederick W., 103 Bayard st., N. Br'sw'k (12)
Scott, Harold R., 68 Central av., Orange (7)
Scott, John J., 6 Zerman pl., Weehawken (9)
Scott, Kenneth H., Jr., 734 Park av., Plainfield (20)
Scott, Leonard G., 496 E. Commerce st.,Bridgeton(6)
Scott, Norman M., 31 Clinton st., Newark (7)
Scott, Samuel G., 141 Bergen av., Jersey City (9)
Scovern, Louis, 112 Westervelt pl., Passaic (16)
Scranton, Charles W., 59 Washington st., E. Or. (7)
Scribner, Charles H.,R.F.D.1,H'mb'g Tpk.,Pat's'n(16)
Scudese, Vincent A., 440 Parker st., Newark (7)
Scullion, Arthur A., 460 Anderson av., Cliffside P.(2)
Sealey, Henry J., 79 Washington av., Dumont (2)
Seely, Roy B., 104 N. Clinton av., Trenton (11)
Segard, Christian P., 204 Glenwood av., Leonia (2)
Seiberling, Joseph D., 225 Redman av., Had'nfl'd (4)
Seidel, Reginald F., 164 Maple st., Englewood (2)
Seidler, Victor B., 16 Plymouth st., Montclair (7)
Seidman, Edwin A., 580 High st., Newark (7)
Seidman, Joshua I., Army (7)
Seidmon, Edward E., 221 W. Seventh st.,Plainfl'd(20)
Seifert, Edwin A., 415 Ridgewood av., Glen Ridge(7)
Seiler, Benjamin, 580 Palisade av., Cliffside Park(2)
Seitzick-Robbins, H. E., 723 W. State st.,Trent'n(11)
Sekerak, Albert J., 984 S. Broad st., Trenton (11)
Sellgmann, Fred S., 501 32nd st., Union City (9)
Selikoff, Irving, 707 Broadway, Paterson (16)
Sell, Frederick W., 167 W. Emerson av.,Rahway(20)
Sellitto, Anthony M., 115 Connett pl., S. Orange (7)
Sena, Dominic R., University Hosp.,CoralG.,Fla.(20)
Sena, Marie A., 561 South Orange av., Newark (7)
Sender, Fannie, 193 Main st., South River (12)
Senerchia, Fred F., Jr., 457 Union av., Elizabeth(20)
Serhus, Laurence N., 402 Main st., Toms River (15)
Seto, Stanford P. T., Box 138, Blackwood (4)
Sevringhaus, Elmer L., 59 Warren pl., Montclair (7)
Sewall, Arthur D., 52 N. Pearl st., Bridgeton (6)

Seward, Frederic H., 40 Green Vil'ge rd.,Madis'n(14)
Seward, William H., 188 S. Essex av., Orange (7)
Sewell, Stephen, 320 Passaic av., Spring Lake (13)
Sexton, Edward V., 936 Queen Anne rd., Teaneck (2)
Seybold, Arthur D., 1080 Rahway rd., Plainfield (20)
Seymour, Edward T., 55 Hillside av., Tenafly (2)
Seymour, George A., 253 Orchard st., Elizabeth (20)
Shack, Maxwell H., 19 Lyons av., Newark (7)
Shaen, Edward, 701 N. 6th st., Camden (4)
Shafer, Albert H., 405 Cooper st., Camden (4)
Shafer, F. William, 634 Penn st., Camden (4)
Shaffrey, Thomas A., 658 Grove st., Irvington (7)
Shaner, Ralph D., 94 Hillside av., Nutley (7)
Shangle, Milton A., 34 Prince st., Elizabeth (20)
Shangold, Jack E., 280 Hobart st., P. Amboy (12)
Shanik, Morton J., 55 W. Blackwell st., Dover (14)
Shanik, William, 601 Grand av., Asbury Park (13)
Shannon, James B., 66 S. Fullerton av., Montclair (7)
Shannon, Lardner M., 66 S. Fullerton av.,Montcl'r(7)
Shapiro, David, 542 Broadway, Paterson (16)
Shapiro, Edward E., 750 Avenue C, Bayonne (9)
Shapiro, Irving, 78 Clinton av., Newark (7)
Shapiro, Joseph S., 314 Fair st., Paterson (16)
Shapiro, Louis, 146 Broad st., Newark (7)
Shapiro, Louis G., 375 Broadway, Paterson (16)
Shapiro, Max, 414 Elizabeth av., Elizabeth (20)
Shapiro, Nathaniel J., 212 Palisade av., Union C. (9)
Shapiro, Ralph N., 668 Clinton av., Newark (7)
Shapiro, Samuel A., 209 Avon av., Newark (7)
Shapiro, Saul J., 50 E. Lincoln av., Atl. Highl'ds(13)
Shapiro, Sydney H., 334 Union av., Irvington (7)
Sharbaugh, George B., 212 W. State st., Trenton (11)
Sharlin, Herbert S., 301 Union st., Hackensack (2)
Sharp, Charles E., Main st., Port Norris (6)
Sharp, Reuben L., 719 Cooper st., Camden (4)
Shaul, Frederick G., 10 Washington st., Bloomf'd(7)
Shaul, John F., Navy (7)
Shavelson, Irving C., 1616 Pacific av., Atl. City (1)
Shaw, Ernest B., 811 Collings av., W. Collingsw'd(4)
Shaw, John J., 31 Lincoln Park, Newark (7)
Shaw, Ned, 514 Cooper st., Camden (4)
Shayevitz, Abraham S., 102 Main st.,South River(12)
Sheaffer, Clinton P., 241 Kings Hwy.,E.,Had'nf'd(4)
Shear, M. Murray, 1158 E. State st., Trenton (11)
Shechner, Isadore, 244 Broadway, Newark (7)
Shechtman, Abraham, 37 Grove st., Passaic (16)
Sheedy, John J., 121 E. Seventh st., Plainfield (20)
Sheehan, Daniel C., 535 Sanford av., Newark (7)
Sheeran, Vincent J., 101 Bentley av., Jersey City (9)
Sheets, Cecil C., 213 W. Broad st., Paulsboro (8)
Sheffield, Doreen R. C., R. D. 1, Oxford (21)
Sheft, Matthew J., 112 Lexington av., Passaic (16)
Shemeley, William G., Jr., 7 Haddon av., Camden(4)
Shenfeld, Isaac, 4806 Atlantic av., Ventnor (1)
Shepard, Adele C., 818 Summer st., Elizabeth (20)
Shepard, Morse A., 17 N. 18th st., Kenilworth (20)
Sheppard, Alfred G., 309 Broad st., Elmer (6)
Sheppard, Muse A., Broad & Penn sts., Elmer (6)
Sheppard, Thomas S., 21 E. Vine st., Millville (6)
Sherk, A. Lincoln, 2647 Westfield av., Camden (4)
Sherman, A. Russell, 671 Broad st., Newark (7)
Sherman, Abraham, 68 Clifton ter., Weehawken (9)
Sherman, Arthur E., 70 Woodland rd., Maplewood (7)
Sherman, Elbert S., 671 Broad st., Newark (7)
Sherman, Fuller G., 204 Delaware st., Woodbury (8)
Sherman, W. Edgar, 7 Livingston av., N.Br'sw'k(12)
Shevitz, David M., 212 Grand av., Hackettstown (21)
Shill, Benjamin, 31 Lincoln Park, Newark (7)
Shimer, Floyd A., 88 Lewis st., Phillipsburg (21)
Shinefeld, Maurice A., 675 Broadway, Paterson (16)
Shipman, James S., 514 Cooper st., Camden (4)
Shipman, Meyer P., 575 Broadway, Paterson (16)
Shipman, Robert T., 907 Summit av., Jersey City (9)
Shipps, Hammell P., 719 Cooper st., Camden (4)
Shivers, Charles H. deT., 121 S. Illinois av.,Atl.C.(1)
Shlionsky, Herman, 27 Wayland dr., Verona (7)
Shook, Benjamin E., 284 Bergen av., Jersey City (9)
Shope, Edward P., 130 N. Broadway, Camden (4)
Shor, David M., 32 S. Munn av., East Orange (7)
Shreehan, Hubert F., 615 Summer av., Newark (7)
Shull, Elliott C., 517 Cooper st., Camden (4)
Shull, John V., 184 Kearny av., Perth Amboy (12)
Shulman, Abraham, 528 E. 29th st., Paterson (16)
Shulman, Murray W., 913 S. 20th st., Newark (7)
Shulman, Nathan L., 538 45th st., Union City (9)
Shuster, Samuel A., 405 Pacific av., Atlantic City (1)
Shuttleworth, John E., W. Jersey Hosp., Camden(4)
Sica, L. Samuel, 431 E. State st., Trenton (11)
Siciliano, Thomas, 6 Clinton av., Clifton (16)
Sickel, Emanuel M., 318 Forest av., Lakewood (15)
Sieber, Isaac G., 204 Merchant st., Audubon (4)
Siegel, Jack G., 38 Johnson av., Newark (7)
Siegel, Jacob W., 96 S. Tenth st., Newark (7)
Siegel, Leo, 1769 Walker av., Union (7)
Siegel, Lester, 180 Belmont av., Jersey City (9)
Siegel, Ralph E., 111 Market st., Perth Amboy (12)
Siegel, Sidney L., 227 N. Second st., Millville (6)
Siegel, Simeon, 167 Washington av., Dumont (2)
Siegel, Victor, 43 E. Front st., Red Bank (13)
Siemion, Theophilis R., 1005 Br'sw'k av.,Trent'n(11)
Silber, Irving M., 94 Schureman st., N. Br'nsw'k(12)
Silberstein, Freder'k H.,4711Westf'd av.,Merch'tv'e(4)
Sllich, Robert L., 875 Boulevard, E., Weehawken (9)
Silk, Charles I., 236 High st., Perth Amboy (12)
Silver, Albert M., 89 Lincoln Park, Newark (7)
Silver, E. Drew, 136 Stockton st., Hightstown (11)
Silver, Michael W., 718 E. 25th st., Paterson (16)
Silvera, Salomon, 532 Bergen av., Jersey City (9)
Silverman, Irving A., 164 Randolph av., Clifton (16)
Silverman, Mendel, 84 Park av., Rutherford (2)
Silverman, R. Louis, 21 W. Main st., Penns Gr. (17)
Silverman, S. Andrew, 860 S. 11th st., Newark (7)
Silverman, Theodore M., 105 Elmora av.,Elizab'h(20)
Silverstein, Benj. J., 32 Hillside av., Newark (7)
Silversteln, Jacob M., 73 Main st., Millburn (7)
Silverstein, Max, 605 First av., Asbury Park (13)
Simeone, Peter A., 138 Clerk st., Jersey City (9)
Simmons, Albert V., 720 Prospect st., Maplewood (7)
Simms, George F., 541 Page av., Lyndhurst (7)
Simon, Franklin, 89 Lincoln Park, Newark (7)
Simon, Fritz C., Hampton (10)
Simon, Henry, 5 Vermont av., Newark (7)
Simon, Ludwig L., 29 Hillside av., Newark (7)
Simon, Philip H., 174 Columbia av., Passaic (16)
Simonson, Louis, 202 Osborne ter., Newark (7)
Simpson, David B., 9 East 35th st., Bayonne (9)
Sims, Eugene R., 118 N. Clinton st., E. Orange (7)
Sinderbrand, Robert E., 344 Phila. av.,E. Harb'r (1)
Sinexon, Henry L., 36 W. Broad st., Paulsboro (8)
Singer, Bella, 640 Wyoming av., Elizabeth (20)
Singer, Marie J., 139 E. Madison av., Dumont (2)
Singer, Max, 147 Johnson av., Newark (7)
Singer, Sina S., 3443 Boulevard, Jersey City (9)
Sinkinson, Charles D.,Jr.,1616 Pacific av., Atl. City(1)
Sinnott, Gerald W., Medical Center, Jersey City (9)
Siss, Alfred A.,198 Haledon av., Prospect Park (16)
Sisson, Nelson W., 144 Harrison st., East Orange(7)
Sivolella, Nicholas W., 245 Clifton av., Newark (7)
Siwek, Stanley, 428 Central av., Harrison (7)
Sklar, S. Harvey, 647 Anderson av., Cliffside Pk.(7)
Skvarla, John A., 17 Koster st., Wallington (2)
Skwirsky, Joseph, 37 Randolph pl., Newark (7)
Skyer, Joseph, 3400 Federal st., Camden (4)
Slabey, Evelyne L., 817 Abbott blvd., Palisade (2)
Slack, Clarence J., 230 W. State st., Trenton (11)
Slavin, Paul, 31 Lincoln Park, Newark (7)
Sloan, Samuel L., 182 Belmont av., Paterson (16)
Sloane, Milton B., 128 W. Hudson av., Englew'd (2)
Slobodlen, Benjamin F., 233 High st., P. Amboy (12)
Slocum, Harry B., 464 Church st., Long Branch (13)

Sly, John L., 382 Springfield av., Summit (20)
Small, Louis, 101 Prospect st., Passaic (16)
Smalzried, Elmer W., 69 Woodland av., E. Or. (7)
Smarzo, Marjorie M., Univ. of Ill., Champaign,Ill.(7)
Smith, Alan L., 32 Washington st., East Orange (7)
Smith, B. Earl, 1017 Greenwood av., Trenton (11)
Smith, Bertram H., 1000 Kings Hwy., Had'n Hts.(4)
Smith, Bryan A., 10 N. Monroe st., Ridgewood (2)
Smith, Charles H., 270 Ridgewood av., Glen Ridge(7)
Smith, Christopher A., 43 Glen Ridge Pkw.,G.R'ge(7)
Smith, DeWitt H., 194 Nassau st., Princeton (11)
Smith, Ellis L., Essex Co. Iso. Hosp., Belleville (7)
Smith, Elroy W., 309 E. DeLido dr.,Miami B.,Fla.(16)
Smith, Frank W., 1238 S. Clinton av., Trenton (11)
Smith, Harold W., 179 Lincoln av., Orange (7)
Smith, Herman, 306 Bates st., Phillipsburg (21)
Smith, Ivan B., Georges rd., Dayton (12)
Smith, J. James, 818 N. Broad st., Elizabeth (20)
Smith, J. Meredith, 198 Valley rd., Montclair (7)
Smith, John A., 106 Main st., South River (12)
Smith, John V., 463 State st., Perth Amboy (12)
Smith, Joseph A., N. J. Sanatorium,Glen Gardn'r(10)
Smith, Leon A., 655 Main av., Passaic (16)
Smith, Leonard H., 32 Washington st., E. Orange(7)
Smith, Marcia V., 821 Wesley av., Ocean City (5)
Smith, Marshall, 62 Bayard st., N. Brunswick (12)
Smith, Meyer, 14 Webster av., Jersey City (9)
Smith, Nehemiah E., 29 Bennett rd., Englewood (2)
Smith, Percy L., West Afton av., Yardley, Pa. (11)
Smith, Sydney F., 402 Raritan av., Highland Pk.(12)
Smith, Thayer A., Forest dr., Short Hills (7)
Smolev, Joseph M., 585 Main av., Passaic (16)
Snape, William J., 573 Stevens st., Camden (4)
Snavely, Earl H., Newark City Hosp., Newark (7)
Snedecor, Spencer T., 210 Main st., Hackensack (2)
Snegireff, Leonid S., 540 Park av., Trenton (11)
Snell, Philip, 217 Paulison av., Passaic (16)
Snyder, Howard P., 610 Salem av., Elizabeth (20)
Snyder, W. Jay, 74 Columbia ter., Weehawken (9)
Sobel, I. Jerome, 136 Broadway, Passaic (16)
Sobin, Julius, 190 Clinton av., Newark (7)
Sobol, Herman, 205 Roseville av., Newark (7)
Sochacki, Alexander, 1478 Mt.Ephraim av.,C'md'n(4)
Sofman, Archie, 27 Nye av., Newark (7)
Sokoloff, Oscar J., 69 Paterson st., N. Brunswick(12)
Solk, Arthur G., 47 Lincoln Park, Newark (7)
Sollami, William R., 2331 S. Broad st., Trenton (11)
Solomon, Harold, 79 Shanley av., Newark (7)
Solomon, Louis, 7 Tonnele av., Jersey City (9)
Solworth, Lee, 308 Engle st., Englewood (2)
Somberg, Harold, 89 Lincoln Park, Newark (7)
Somers, Fred L., 144 Harrison st., East Orange (7)
Somers, Williard H., 157 Engle st., Englewood (2)
Sommer, George N. J., 120 W. State st., Trenton (11)
Sommer, George N. J.,Jr.,120 W.State st.,Trent'n(11)
Sordill, Anthony, 1114 Grandview av., Westfield (20)
Soschin, Samuel J., 31 Lincoln Park, Newark (7)
Sosnow, Louis M., 51 Central av., Hillsdale (2)
Sottilaro, Joseph J., 1921 Boulevard, Jersey City (9)
Spaldo, John L., 32 Grove st., Somerville (18)
Spallone, Joseph C., 123 Mt. Prospect av., Newark(7)
Spano, Frank, 320 47th st., Union City (9)
Sparks, Paul R., 102 W. Broad st., Burlington (3)
Sparks, Spurgeon, Jr., 21 Oakwood av., Orange (7)
Spath, William H., 722 Hudson st., Hoboken (9)
Speer, Charles A., 19 Holly st., Cranford (20)
Spence, Harold G., 26 Badeau av., Summit (20)
Spencer, Alvan, 395 W. Blackwell st., Dover (14)
Spencer, Ira T., 152 Main st., Woodbridge (12)
Spencer, James H., Jr., Newton (19)
Sperber, Thomas J., 714 Cedar lane, Teaneck (2)
Sperling, Irving L., 167 Osborne ter., Newark (7)
Sperling, Walter, 29 Oxford st., Montclair (7)
Spicola, Louis A., 294 Union st., Lodi (2)
Spiegelglass, Abraham B., 417 Main st., Hac'ns'k(2)
Spillane, Timothy H., 379 S. Main st., Phillipsb'g(21)
Spinner, Samuel L., 15 Third st., Elizabeth (7)
Spinosa, William J., Army (7)
Spirito, Michael W., 219 S. Broad st., Elizabeth (20)
Spivack, David, 315 W. Jersey st., Elizabeth (20)
Spivack, Seymour E., 405 Chestnut st., Roselle (20)
Spohn, Eugene L.,16 Riverton dr.,SanFrancisco,C.(9)
Sporer, Andrew, 707 Broadway, Paterson (16)
Spradley, Jeems B., 395 W. State st., Trenton (11)
Sprague, Edward W., 86 Washington st., New'k (7)
Spranz, William S., 546 Oradell av., Oradell (2)
Spritzer, Theodore D.,102 S.Wash'gt'n av.,Dun'l'n(12)
Spurgeon, Dorsett L., 19 Church st., Newton (19)
Stabile, John A., Grand av., West Trenton (11)
Staehle, Richard H., 366 S. Orange av., S. Orange(7)
Stage, Earl DeW., 36 Maple av., Morristown (14)
Stahl, Alfred, 160 Lincoln av., Newark (7)
Stahl, Charles, 659 Sanford av., Newark (7)
Staknevich, John H., 309 Myrtle av., Irvington (7)
Stamps, G. Ruffin, 1616 Pacific av., Atlantic City(1)
Stanley, Thomas A., 77 Beech st., East Orange (7)
Stark, Jacob, 645 Broadway, Paterson (16)
Starr, Benjamin, 70 Sherman pl., Jersey City (9)
Starr, Eli, 16 62nd st., West New York (9)
Starr, George R., Jr., Wash'gton av.,Duxbury,M.(7)
Statile, Pasquale A., 598 Pavonia av., Jersey City (9)
Statman, Arthur J., 17 Leslie st., Newark (7)
Staub, E. Milton, 505 E. Broad st., Westfield (20)
Staub, Wilfred A., 531 E. Broad st., Westfield (20)
Stearns, Thornton, 312 S. Harrison st., E. Orange (7)
Steel, William A., Beesley's Point (5)
Steele, Stephen, 10 West Gibbons st., Linden (20)
Stefansin, Frank, 1601 Boulevard, North Bergen(9)
Steffens, Charles T., 612 Park av., Plainfield (20)
Stein, Albert, 600 80th st., North Bergen (9)
Stein, Emil, 607 Park av., Elizabeth (20)
Stein, Frederick, 620 Ridge rd., Lyndhurst (2)
Stein, George H., 640 Wyoming av., Elizabeth (20)
Stein, Harold M., 227 W. Broadway, Paterson (16)
Stein, Harriet N., 620 Ridge rd., Lyndhurst (16)
Stein, Isadore, 817 N. Broad st., Elizabeth (20)
Stein, Jacob M., 68 Columbia ter., Weehawken (9)
Stein, Joseph M., 5313 Sherwood ter., Merch'tv'e(4)
Stein, Louis A., 226 W. State st., Trenton (11)
Stein, Martin H., 60 Elmora av., Elizabeth (20)
Stein, William, 177 Livingston av., N. Br'sw'k(12)
Steinberg, Werner, 35 Gesner st., Linden (20)
Steiner, Edwin, 31 Lincoln Park, Newark (7)
Steiner, Herbert, 650 Stuyvesant av., Irvington (7)
Steller, Frederick C., 220 St. Clair av., Spring L.(13)
Steneck, Gustav G., 275 River rd., Bogota (2)
Stephenson, Daniel H., 500 Camden av.,Moorest'n(4)
Stephenson, Gordon A., 145 Summit av., Summit(20)
Stern, Max E., 2 Milford av., Newark (7)
Stern, Morton M., 24 Girard pl., Newark (7)
Stetser, Leland M., 416 Evans av., Haddonfield (4)
Steuart, David F. R., 9 Armstrong rd., Morrist'n(14)
Stevens, Donald J., 1479 Compton ter., Hillside (7)
Stevens, Merton H., 58 S. Maple av., East Orange (7)
Stevenson, G. McKay, 129 Summit av., Summit (20)
Stevenson, George S., R. D. Box 556, Red Bank (13)
Stewart, Irving J., 529 Kings Hwy., Swedesboro (8)
Stewart, Katherine E., Railroad av., Ogdensburg(19)
Stewart, Robert G., 79 Midland av., Montclair (7)
Stewart, Sloan G., 43 S. North Carolina av.,Atl.C.(1)
Stewart, Walter B., 8 N. Tallahassee av., Atl. City(1)
Stickles, Lloyd C., 49 Parkhurst st., Newark (7)
Stier, Howard W., 657 Main av., Passaic (16)
Stockfisch, Robert H., 3637 Boulevard, Jersey City(9)
Stoddard, Gordon V., 96 Glenwood av., E. Orange(7)
Stokes, Anthony T., 819 First st., Secaucus (9)
Stokes, Donald E., 120 Prospect st., S. Orange (7)
Stokes, Gordon D., 88 W. Ridgew'd av.,Ridgew'd(2)
Stokes, James S., 32 Main st., Little Falls (16)
Stoll, George F., 330 Washington av., Belleville (7)

Stollman, Bernard D., 21 John st., N. Brunswick(12)
Stolow, Alan A. J., 219 W. Summit st., Somerv'e(18)
Stoltz, Raymond R., 23 Passaic av., Passaic (16)
Stone, Frank P., 234 Fairmount av., Laurel Spr.(4)
Stone, Russell B., 56 Summit av., Phillipsburg (21)
Stoner, William H., 2 Broad st., Bloomfield (7)
Storaci, Frank S., 715 Hamilton av., Trenton (11)
Storer, Alexander, Jr., 563 Haddon av., Col'gsw'd(4)
Stouter, Francis L., 661 E. 18th st., Paterson (16)
Strack, Vincent J., 1072 S. Orange av., Newark (7)
Strahan, Frank G., 473 Broadway, Long Branch(13)
Straub, Herbert H., 242 Springdale av., E. Orange(7)
Straus, Frederick W., 2708 Westfield av., Camden(4)
Straus, Max, 87 Harrison pl., Irvington (7)
Straus, Walter, 1239 Greenwood av., Trenton (11)
Strauss, Arthur, 130 Pavilion av., Long Branch (13)
Strauss, Frederick, 845 S. 12th st., Newark (7)
Strauss, Max, 190 Clinton av., Newark (7)
Strauss, William T., Jr., 8 Chester rd., U.Montcl'r(7)
Strazza, John A., 183 Broad st., Bloomfield (7)
Streen, Morris E., 908 Bergen st., Newark (7)
Strelinger, Alexander, 650 N. Broad st., Elizab'h(20)
Strom, Abraham, 410 W. Seventh st., Plainfield(20)
Strully, Leonard V., 660 Broadway, Paterson (16)
Stuart, J. Earle, 552 E. Second st., Plainfield (20)
Stuart, William C., 1 Newark st., Hoboken (9)
Sturchio, Eugenio, 178 Mt. Prospect av., Newark(7)
Stybel, Joseph, 507 Park av., Plainfield (20)
Subin, Harry, 2 S. Somerset av., Ventnor (1)
Sucoff, Moses C., 158 Hamilton av., Passaic (16)
Suesserman, Henry, 389 Lyons av., Newark (7)
Suffness, Gustave, 970 Park av., Elizabeth (20)
Sufrin, Emanuel, 1529 Wildwood av., Camden (4)
Sullivan, Charles J., 57 Paterson st., N.Brunsw'k(12)
Sullivan, Claude C., Jr., 111 Hemlock av.,Laurel S.(4)
Sullivan, James A., 19 Kensington av.,Jersey City(9)
Sullivan, James M., III, 88 Spring st., Trenton (11)
Sullivan, John A., 764 Queen Anne rd., Teaneck (2)
Sullivan, William M., Jr., 43 Passaic av., Passaic(16)
Summerill, Garnett, 330 Cooper st., Camden (4)
Summers, Alfred D., 71 Palmer sq., Princeton (11)
Surgent, George W., 1074 Van Houten av.,Clifton(16)
Surran, Carl A., 1616 Pacific av., Atlantic City (1)
Susinno, Anthony M., 29 Roff av., Palisades Pk. (2)
Sussman, Harold, 103 Tenth st., Hoboken (9)
Sussman, Irvin, 241 E. Commerce st., Bridgeton (9)
Suter, Harry F., 49 W. Main st., Penns Grove (17)
Sutnick, Theodore B., 25 Richey pl., Trenton (11)
Sutton, Joseph G., Essex Co. Hosp., Cedar Grove (7)
Svenson, Sven E., 515 Sanford av., Newark (7)
Swain, Richard D., Jr., 211 Roseville av., Newark(7)
Sweeney, Ralph E., 348 Elmora av., Elizabeth (20)
Swern, Nathan, 399 W. State st., Trenton (11)
Swiecicki, Martin E., 9 Second av., Hadd'n Hts.(4)
Swiney, Juliana C., 325 Avenue C, Bayonne (9)
Swiney, Merrill A., III, 325 Avenue C, Bayonne (9)
Sydoriak, Vladimir L., 111 N. Third st., Millville(6)
Symes, Earl R., 544 Belgrove dr., Kearny (7)
Szittya, Sandor, 95 S. Main st., Phillipsburg (21)
Szivos, Louis A., 160 Glenwood av., East Orange (7)
Szold, Norman F., 701 Princeton av., Lakewood (15)
Szot, Alexander, 747 Ridge rd., Lyndhurst (2)
Szuch, Nicholas, 159 Main st., South River (12)
Szymanski, John J., 616 Main av., Passaic (16)

ASSOCIATE MEMBERS

Sadoff, Irvin D., 163 New st., New Brunswick (12)
Sall, Jack, 665 Broadway, Paterson (16)
Schiller, Max, 159 New st., New Brunswick (12)
Scillieri, Frank, 1072 Madison av., Paterson (16)
Seely, Richard H., 902 N. Penn av.,Morrisv'le,Pa.(11)
Selecky, Medard A., 35 S. Main st., Allentown (11)
Sheldon, Siegfried, 712 Lyons av., Irvington (7)
Shepp, Murray, 21 Runyon cir., Trenton (11)
Shershin, Peter, Chittenden rd., Clifton (16)
Shields, Henry A., 52 Novesink av., Highlands (13)
Siegel, Robert, 96 S. 10th st., Newark (7)
Sinnott, John, Jr., Rumson rd., Rumson (13)
Small, Leon I., 250 Millburn av., Millburn (7)
Sobol, Betty M., 396 N. Arlington av., E. Orange (7)
Statman, Bernhardt, 849 S. 12th st., Newark (7)
Steller, Stanley, 597 E. 27th st., Paterson (16)
Strassburger, Paul J.,Jr.,330 Wash'gt'n av.,Bel'v'e(7)
Sweeley, William J., 17 Smull av., Caldwell (7)
Szafir, Paul, 250 VanHouten st., Paterson (16)
Szelewa, Edward S., 87 Stuyvesant av., Newark (7)

T

ACTIVE MEMBERS

Taber, Frederick S., 55 Paterson st., N. Br'sw'k(12)
Taber, Leslie R., 292 Broadway, Paterson (16)
Taff, Harry, 165 Roseville av., Newark (7)
Taffet, Seymour, 55 W. Passaic av., Bloomfield (7)
Taffet, William, 379 Union av., Belleville (7)
Taft, Herman L., 4401 Boulevard, North Bergen (9)
Talmage, William G., Main st., Succasunna (14)
Talty, John C., 935 Washington st., Hoboken (9)
Tansey, W. Austin, Jr., 169 Hobart av.,ShortHills(7)
Taranto, Michael, 13 E. Gibbons st., Linden (20)
Tarbell, Harold A., 13 Pennington st., Newark (7)
Targan, Nathan, 27 N. Connecticut av., Atl. City (1)
Tarta, Ciro S., 654 E. 18th st., Paterson (16)
Tataryan, Hovsep, 2024 New York av., Union City(9)
Tatem, Henry R., Jr., Pine st. & Atl. av., Audubon(4)
Taterka, Adrian, Lake Hiawatha (7)
Tator, Arthur E., 57 DeForest av., Summit (20)
Taylor, Earl S., 18 Stockton pl., Princeton (11)
Taylor, Raymond A., 58 Madison av., Lakewood(15)
Teichholz, Max H., 19 Meade av., Passaic (16)
Tell, M. Edward, 249 Lexington av., Passaic (16)
Teller, Daniel W., Jr., 28 DeHart st., Morristown(14)
Temes, J. Howard, 9 Garrison av., Jersey City (9)
Tenney, Albert S., 6 N. Munn av., East Orange (7)
Tenney, Luman H., 177 Prospect av., Princeton (11)
Tennis, Edgar M., 375 Engle st., Englewood (2)
Tepper, Victor, 2 Parkview ter., Newark (7)
terKuile, Reinold W., 88 W.Ridgew'd av.,Ridgew'd(2)
Terreri, D. Joseph, 30 High st., Morristown (14)
Terwedow, Henry, 7707 Boulevard, North Bergen(9)
Terwedow, Walter G., 518 79th st., North Bergen (9)
Teskey, Stanley, 10 Anderson rd., Bernardsville (14)
Tether, Russell K., Main st., Closter (2)
Thalheimer, Edward J., 7th & Plum sts., Vineland(6)
Thetford, Norman D., 68 South st., Eatontown (13)
Thomas, Claude W., 28 East av., Woodstown (17)
Thomas, George N., 8th & Grape sts., Vineland (6)
Thomas, Irene O., 350 Lafayette av., Hawthorne (16)
Thomas, John H., 270 Lenox av., South Orange (7)
Thomas, Leon H. S., 631 E. 22nd st., Paterson (16)

Thomas, Ralph B., 793 Montgomery st., Jer. City (9)
Thomas, Thomas S., Jr., 18 Elm st., Morristown (14)
Thomison, Harry E., 605 Broad st., Newark (7)
Thompson, Edward C., 373 Park av., Paterson (16)
Thompson, Frank F., Jr., 261 Orange rd.,Montclair(7)
Thompson, Kenneth W., Organon, Inc., Orange (7)
Thompson, Minturn R., 530 W. Broad st.,Westf'd(20)
Thompson, P. H., 4612 Westf'd av.,Penns'k'n Tsp.(4)
Thompson, T. M., Box 314, R.D. 3, N. Brunsw'k (12)
Thompson, Victor, 80 W. Front st., Keyport (13)
Thompson, Walter A., 714 Ackerman av.,Glen R.(16)
Thompson-Bohne, Mildred H.,62 Elm st., Summit(20)
Thomson, Carroll S., Fair Oaks Sana., Summit (14)
Thornhill, Arthur C., 47 Forest st., Montclair (7)
Thornley, William F., 495 Prospect st., Maplew'd (7)
Thron, Leopold E., 586 E. 29th st., Paterson (16)
Thum, Kurt W., 366 Main st., West Orange (7)
Thurm, Arthur S., 225 W. State st., Trenton (11)
Tidwell, Harold F., 6101 Boulevard, E., W. N. Y. (9)
Tilley, John A., 165 Main st., Keyport (13)
Tillis, Herman H., 31 Lincoln Park, Newark (7)
Tilton, William R., 763 Broad st., Newark (7)
Timberlake, Baxter H., 5414 Ventnor av.,Ventnor(1)
Tisch, Leon, 28 S. Third av., Highland Park (12)
Tobey, Franklin J., 11 Hazelwood av., Newark (7)
Tobey, John R., 4427 Chestnut st., Phila., Pa. (7)
Tocci, Frank, 74 Grove st., Montclair (7)
Toczek, Heinrich A., 391 Bergen st., Newark (7)
Todd, Francis H., 83 Auburn st., Paterson (16)
Tolomeo, Martin E., 5 E. High st., Bd. Brook (18)
Tolor, Stanley, 405 Westminster av., Elizabeth (20)
Tomaiuoli, Michele, 19 76th st., North Bergen (9)
Tomec, Otto C., 756 Parkway av., Trenton (11)
Tomec, Richard F., 70 Harrison av., Montclair (7)
Tomkins, William, 105 Fairmount rd., Ridgew'd(16)
Tomlinson, Rolland D., 505 E. Broad st.,Westfl'd(20)
Tompkins, Grenelle B., 52 Broad st., Flemington (10)
Toren, Julius A., R. D. 1, Box 95, Long Branch (13)
Torppey, John J., 472 Sanford av., Newark (7)
Toscano, George A., 364 Park st., Hackensack (2)
Towbin, Adolph, 326 Third st., Lakewood (15)
Townsend, John B., 824 Wesley av., Ocean City (5)
Townsend, Leslie M., 420 Chestnut st., Roselle P.(20)
Toy, Calvert R., 22 Kirkpatrick st., N. Br'sw'k (12)
Tracy, George T., 222 Warren st., Beverly (3)
Traganza, Robert W., 428 Richey av.,W.Col'gsw'd(4)
Trano, Giovanni, 941 E. Jersey st., Elizabeth (20)
Trautwein, Charles F., 131 Nesbit ter., Irvington(7)
Travers, Frank A., 485 Park av., Orange (7)
Treiber, Benjamin A., 219 W. State st., Trenton (11)
Tretter, Hans L., 501 W. State st., Trenton (11)
Trewhella, Arthur P., 376 Fairmount av., Jer.City(9)
Triarsi, Anthony J., 702 Third av., Elizabeth (20)
Triolo, John V., 598 Springfield av., Summit (20)
Trippe, Morton F., 702 Asbury av., Asbury Park(13)
Troast, Leonard, 2801 Boulevard, Jersey City (9)
Troedsson, Bror S., 188 S. Essex av., Orange (7)
Troum, Nathan, 82 Danforth av., Jersey City (9)
Truax, Alfred J., Chester (14)
Tsucalas, James C., 29 Highland av., Jersey City(9)
Tucker, Albert B., 47 Lincoln Park, Newark (7)
Tucker, Sidney, 211 Madison av., Perth Amboy (12)
Tuly, Ralph, 134 S. Kingman rd., South Orange (7)
Tunis, Benno B., 22 Ingraham pl., Newark (7)
Turi, Amedeo E., 407 Mt. Prospect av., Newark (7)
Turner, Charles F., 151 Grove st., Montclair (7)
Turner, Rodney C., 609 Greenwood av., Trenton (11)
Tushnet, Leonard, 662 18th av., Irvington (7)
Tutela, Arthur C., 220 S. Seventh st., Newark (7)
Tweddel, George K., 239 Broadway, Paterson (16)
Twitchell, Adelbert B., 120 S. Harrison st., E. Or.(7)
Tyler, Charles O., 134 Kings Hwy.,E.,Hadd'nf'd (4)
Tymeson, Walter R., 310 Main st., Orange (7)
Tyndall, Alice E., 263 Walnut st., Westfield (20)
Tyndall, Hugh H., 83 Highwood ter., Weehawken(9)
Tyndall, Martha W., 263 Walnut st., Westfield (20)
Tyrrell, George W., 380 State st., Perth Amboy (12)
Tyson, Edward B., 391 55th st., Ocean City (5)

ASSOCIATE MEMBERS

Tarchiani, Lucius S., 472 River st., Paterson (16)
Taylor, Halley B., Jr., 221 Hamilton av.,Paters'n(16)
Tobin, Joseph M., N. J. State Hosp., Marlboro (13)
Topley, Howard E., Jr., 25 Columbia av.,Trenton(11)
Tweddel, George K., Jr., 505 Park av., Paterson (16)
Tyndall, Alice D., 127 Maple av., Red Bank (13)

U

ACTIVE MEMBERS

Udinsky, Hyman J., 57 Passaic av., Passaic (16)
Uhr, Jacques S., 127 Livingston av., N. Br'sw'k(12)
Ulan, Jerome, Main st., Spotswood (12)
Ulan, Oscar, 92 Fleming av., Newark (7)
Ulmer, Chester I., 431 W. Broad st., Gibbstown (8)
Ulmer, D. H. Bartine, 199 Chestnut st., Moorest'n(3)
Ulvestad, Lawrence E., 119 Irvington av., S. Or. (7)
Underwood, J. Harris, 509 N. Broad st., Woodbury(8)
Upham, Helen F., 305 Third av., Asbury Park (13)
Urbach, George, 181 Chancellor av., Newark (7)
Urbaniak, Henry S., 883 Brunswick av., Trenton(11)
Urbanski, Matthew F., 148 Market st., P. Amboy(12)
Urevitz, Abraham, 2415 New York av., Union C. (9)
Utkewicz, Edmond A., 2633 Boulevard, Jer. City (9)
Uzzell, Edward F., 2703 Pacific av., Atlantic City(1)

ASSOCIATE MEMBERS

Underwood, Robert, 345 Washington av.,Belley'le(7)
Urban, George J., Jr., 40 Egan st., Fords (12)
Urie, Murray G., 394 E. 30th st., Paterson (16)

V

ACTIVE MEMBERS

Vaczi, Stephen, 983 S. Broad st., Trenton (11)
Valentin, Irmgard, 131 S. Harrison st., E. Orange (7)
Vallario, Frank A., 333 Clifton av., Newark (7)
Van Amberg, Robert J., 25 Trinity pl., Montclair(7)
Vandenberg, Werner, 7 S. La Clede pl., Atl. City (1)
Vanderbeck, James J., 123 Prospect st.,Ridgew'd(16)
Vanderbeek, Andrew B., 174 Broadway,Paterson(16)
Vanderbeek, Frank B., 683 E. 27th st., Paterson (16)
Vanderbeek, Stuart W., 143 Engle st., Englewood(2)
Vander Clock, Cornelius, 178 Gregory av.,Pass'c(16)
Vandersluis, Harold H., 40 Pascack rd., P. Ridge(2)
Vander Veer, H. Garrett, 295 M'tg'm'y st.,Bl'mf'd(7)
Van Dyke, Laura V., 125 Hamilton st., Bd. Brook(18)
Van Eerde, Albert, 339 Lafayette av., Hawth'ne(16)
Van Emburgh, George H., 575 Belgr'e dr.,Arl'gt'n(7)
Van Gieson, Edward J., 71 Watsessing av.,Bl'mf'd(7)
Van Horn, Abram L., 744 Broad st., Newark (18)
VanMater, John S., 61 Livingston av., N.Br'sw'k(12)
Vann, Dorothea D., 179 Hillside av., Englewood (2)
Vann, Felix H., 179 Hillside av., Englewood (2)
Vannatta, George W., 226 N. Park st., E. Orange (7)
Vanneman, Joseph S., 45 Princeton av.,Princet'n(11)
Van Ness, H. Roy, 444 Parker st., Newark (7)
Van Riper, Wm.D.,441W.Englew'd av.,W.Eng'w'd(2)
Van Schott, Gerard J.,Jr.,245Lex'gt'n av.,Passaic(16)
Van Wiemokly, Seymour S.,201Sp'dw'l av.,M'r't'n(14)
Van Winkle, Charles I., 79 Ridge rd., Rutherford(2)
Van Winkle, John S., 297 Broadway, Paterson (16)
Vargish, Hildegard S.,268K'd'rk'm'k rd.,N.H'k'ns'k(2)
Vargish, Jacob, 268 Kinderk'm'k rd.,N.Hack'ns'k(2)
Vargyas, Joseph C., 116 New st., N. Brunsw'k (12)
Varhol, Joseph G., 436 Clifton av., Clifton (16)
Varney, William H., 122 Belvidere av.,Wash'gton(21)
Varriano, John L., 3263 Boulevard, Jersey City (9)
Vento, Sebastian J., 452 Hamilton av., Trenton (11)
Verbeck, George B.,20 Church av.,B'lst'nSpa.,N.Y.(7)
Verdon, Robert E., 682 Anderson av., Cliffside (2)
Verga, Armand, 20 Main st., Manasquan (13)
Vermes, Leslie, 380 Rutherford av., Franklin (19)
Vermeulen, Abram, 344 Haledon av., Prosp't P. (16)
Vernaglia, Anthony P.,418 Lincoln av.,H'wth'ne(16)
Villanova, Ralph N., 266 S. Eighth st., Newark (7)
Villapiano, Joseph G., 701 Sunset av., Asbury P.(13)
Vincent, Nicholas F., 144 Harrison st., E. Orange (7)
Vinciguerra, Michael, 604 Westm'ster av.,Eliz'b'h(20)
Vine, Blair, 1437 S. Broad st., Trenton (11)
Virgilio, Anthony A., 87 S. Centre st., Orange (7)
Visceglia, Frank R., 430 74th st., N. Bergen (9)
Visconti, Joseph A., 105 Newark st., Hoboken (9)
Vita, Frank J., 695 Palisade av., Cliffside (2)
Vitale, Dominic V., 749 N. Broad st., Elizabeth (20)
Viteri, Luis E., 214 Main st., Mt. Holly (3)
Vogel, H. Austin, 1060 E. Jersey st., Elizabeth (20)
Vogel, Nathan F., 297 Morris av., Springfield (20)
Vol-Tretter, Marta, 501 W. State st., Trenton (11)
von Deilen, Arthur W., 530 Cooper st., Camden (4)
von Deilen, Henry O., 28 DeHart st., Morristown(14)
Von Hofe, Frederick H., 14 Colony dr., W. Orange(7)
Von Oehsen, William H., 623 4th av., Bradley B.(13)
Voorhies, William S., Jr.,N.J.State H.,Greyst'e P.(14)
Vosburgh, Fred, 663 Main av., Passaic (16)
Voss, J. Landon, 212 South st., Morristown (14)
Voss, John C., 634 Thomas av., Riverton (3)
Vostrosablin, Nicholas A., 121 Grand st.,Jer. City(9)
Vreeland, Ralph J., 278 McKinley pl., Ridgew'd (16)
Vroom, William L., 88 W. Ridgew'd av., Ridgew'd(2)

ASSOCIATE MEMBERS

Vander Bush, Edward F., 534 E.29th st.,Paters'n(16)
Van Ness, Walter J., 364 Franklin st., Bloomfield(7)

W

ACTIVE MEMBERS

Wacker, William F., 1224 Salem av., Hillside (20)
Wager, Henry P., 39 Gifford av., Jersey City (9)
Wagner, John, 48 Wilson av., Newark (7)
Wagner, Richard, 915 Springfi'd av.,N.Provid'ce(20)
Wainwright, Melvin A. R., 286 Broad st.,Red Bk.(13)
Wakeley, William E., 144 Harrison st., E. Orange(7)
Waldron, Edward L., 910 Stuyvesant av.,Trenton(11)
Waldron, Robert E., 699 Kearny av., Arlington (7)
Walkenberg, Michael, 56 Clinton pl., Newark (7)
Walker, Ada H., 635 Landis av., Vineland (6)
Walker, H. Burton, 635 Landis av., Vineland (6)
Walker, Harold G., 252 Everett av., Wyckoff (16)
Walker, Levi M., 5407 Atlantic av., Ventnor (1)
Walker, Nelson C., 261 Summit av., Hackensack (2)
Walker, Otto, 198 Pershing av., Carteret (12)
Walker, Robert B., 108 Church st., N. Brunsw'k(12)
Wallace, Marc J., 165 Lakeview av., Clifton (16)
Wallach, Bernard, 74 Watchung av., N. Plainfi'd(18)
Wallack, Charles A., 23 Treacy av., Newark (7)
Wallack, Eli A., 92 Fairview av., Jersey City (9)
Wallen, Benjamin B., 217 E. Pine av., Wildwood (5)
Walsh, Charles R., 95 W. Northfield av.,Liv'gston(7)
Walsh, Ronald J., 338 S. Broad st., Elizabeth (20)
Walsh, Thomas J., Barnes Hosp.,Vanc'ver,Wash.(11)
Walsh, Thomas J., 335 S. Broad st., Elizabeth (20)
Walters, George M., 158 Main st., Woodbridge (12)
Walton, Gordon G., 575 E. 28th st., Paterson (16)
Walton, Ralph W., 102 Gates av., Montclair (7)
Wangner, William F., 1190 Broad st., Bloomfield(7)
Wannemacher, Paul, 87 Valley Way, W. Orange (7)
Wantoch, Joseph, 14 Carteret av., Carteret (12)
Warburton, Jack C., 333 Park av., Paterson (16)
Ward, Albert J., 39 Elm st., Morristown (14)
Ward, Chauncey P., 1481 Maple av., Hillside (7)
Ward, Elisabeth B., 555 William st., E. Orange (7)
Ward, Gertrude P., 41 Park pl., Bloomfield (7)
Ward, Leo J., 137 W. Jersey st., Elizabeth (20)
Ward, Mary, 30 Engle st., Tenafly (2)
Ward, William R., 112 Chancellor av., Newark (7)
Ward, William R., Jr., 112 Chancellor av.,Newark(7)
Ware, Carl N., Bridgeton rd., Shiloh (6)
Warne, Merna M., V.A. Hospital, Aspinwall, Pa. (14)
Warnecke, Rudolph E., 43 S. Maple av.,E. Orange(7)
Warner, William H. A., 444 Central av.,E. Orange(7)
Warren, Charles B., 181 Prospect av., Bergenf'd (2)
Warren, David E., 48 Rutgers pl., Passaic (16)

Warren, Earl L., Box 1738, Paterson (16)
Warren, Jacob, 308 18th av., Paterson (16)
Warter, Peter J., 717 W. State st., Trenton (11)
Warwick, Ralph A., 3300 Federal st., Camden (4)
Washington, William H., 321 High st., Newark (7)
Wassing, Hans, 695 Broadway, Paterson (16)
Waterman, Samuel M., 41 Shanley av., Newark (7)
Waters, Charles H., 928 W. State st., Trenton (11)
Waters, Edward G., 39 Gifford av., Jersey City (9)
Watman, Anthony J., 2784 Boulevard,Jersey City(9)
Watov, Samuel E., 178 W. State st., Trenton (11)
Watts, Wilbur, 436 E. State st., Trenton (11)
Waugh, Bascom S., 1882 S. 10th st., Camden (4)
Way, Clarence W., 4515 Landis av., Sea Isle City (5)
Wayman, Bernard R., 1100 S. Broad st., Trenton(11)
Webb, Eleanor A., 887 Springfield av., Summit (20)
Weber, Francis C., 286 Mt. Prospect av., Newark (7)
Weber, John F., 264 Main st., South Amboy (12)
Weber, Laura E., 305 23rd st., Union City (9)
Weeks, Belford A., 534 S. Shore rd., Absecon (1)
Weeks, Norman E., 159 Christopher st., Montcl'r (7)
Weems, Don B., 105 E. Mantua av., Wenonah (8)
Wegryn, Louis S., 257 Elizabeth av., Elizabeth (20)
Weigel, Edgar W., 210 W. Jersey st., Elizabeth (20)
Weigel, Elmer P., 727 Watchung av., Plainfield (20)
Weimann, Max L., 803 Station av., Haddon Hts. (4)
Weinberg, C. Richard, 597 Clinton av., Newark (7)
Weiner, Aaron, 660 Broadway, Paterson (16)
Weiner, Harry, 283 Franklin st., Bloomfield (7)
Weiner, Henry T., 280 Hobart st., Perth Amboy(12)
Weiner, Herman R., 527 Cooper st., Camden (4)
Weiner, Samuel E., 904 Pacific av., Atlantic City(1)
Weinert, Henry V., 128 Market st., Passaic (16)
Weinmann, Max H., 714 Scotland rd., Orange (7)
Weinstein, Alvin, 710 Mattison av., Asbury Pk.(13)
Weinstein, Francis S., 840 S. 11th st., Newark (7)
Weinstein, Leopold, 441 West End av., N. Y. C. (7)
Weinstein, Morris W., 942 Sanford av., Irv'gton (7)
Weinstein, Robert A., 214 Spring st., Newton (19)
Weintraub, William L., 400 Broadway, Paterson (16)
Weintrob, Joseph R., 1616 Pacific av., Atl. City (1)
Weisman, Herbert, 273 Avenue A, Bayonne (9)
Weisman, Stephen L., 526 Broadway, Paterson (16)
Weiss, Abram, 509 Warwick av., West Englewood(2)
Weiss, Fred, 254 Wainwright st., Newark (7)
Weiss, Herman, 300 Madison av., Madison (14)
Weiss, Louis, 519 Springfield av., Newark (7)
Weiss, Morris J., 734 Avenue C, Bayonne (9)
Weiss, Samuel A., 786 Palisade av., Teaneck (2)
Weiss, Selma, 190 Clinton av., Newark (7)
Weiss, William I., 80 Clinton av., Newark (7)
Weissberg, Jonas, 470 Jefferson, av., Elizabeth (20)
Weissberg, Wm. W., 800 N. Broad st., Elizabeth(20)
Weissman, Meyer T., 1137 E. Jersey st., Elizab'h(20)
Weitz, Abraham, 2512 S. Chester av.,Bakersf'd,C.(20)
Weitz, Paul, Veterans Administration, Lyons (18)
Welkind, Allen A., 12 Smull av., Caldwell (7)
Weller, Arthur, 19 Hillyer st., Orange (7)
Weltchek, Herbert, 439 Jersey av., Elizabeth (20)
Wender, Harold, 103 Clinton st., S. Bound Brook(18)
Wentz, Irl Z., 224 Webster av., Seaside Heights (15)
Wentzell, J. Earl, 5 E. Mantua av., Wenonah (8)
Wescoat, George N. A., 202 W. Main st.,Moorest'n(3)
Wesson, Harrison R., 198 Valley rd., Montclair (7)
West, Guernsey F., Barrymore st., Phillipsburg(21)
Westerhoff, Peter D., 51 Highland av.,Midland P.(16)
Westney, F. Rolfe, 1920 Pacific av., Atlantic City(1)
Weston, Clifford G., 27 Woodland av., Glen Ridge(7)
Weston, Elaine, 40 Midland av., Arlington (9)
Wetherhold, John M., 20 Ziegler Tract, Penns G.(17)
Wetterberg, Louis F., 74 Grove av., Woodbridge(12)
Whaland, Berta, 117 Atlantic st., Bridgeton (6)
Wheeler, James A. V., 85 Van Reypen st.,Jer.City(9)
Wheeler, William K., 140 Roseville av., Newark (7)
Whelan, Edward P., 460 Franklin av., Nutley (7)
Whelan, Vincent, 67 E. Front st., Red Bank (13)
Whigham, Herbert H., Jr.,38 Madison av., M'tcl'r(7)
Whims, Clarence B., 5407 Atlantic av., Ventnor (1)
Whitaker, Henry J., 10 S. Broadway, Pitman (8)
White, Frank S., 916 Red rd., Teaneck (2)
White, Harry J., Roosevelt Hospital, Metuchen (12)
White, Hugh M., 901 Summit av., Jersey City (9)
White, R. Rostin, 644 Shore rd., Somers Point (1)
White, Robert R., 144 Harriston st., East Orange(7)
White, Thomas J., 50 Glenwood av., Jersey City(9)
Whiticar, John H., Box 235, Ocean City (5)
Whitken, Albert I., 1056 North av., Elizabeth (20)
Whitman, Lloyd B., 7 W. Clinton av., Bergenfield(2)
Whitney, Leon H., 540 Broad st., Newark (7)
Wiant, Herman E., 120 Windsor av., Haddonf'd (4)
Wichman, Heins, 28 DeHart st., Morristown (14)
Widdowson, William W., Bell Tele. Lab.,Mur.Hill(20)
Widetsky, Alfred, 85 Broadway, East Paterson (2)
Wiener, David, 196 Weequahic av., Newark (7)
Wiesenfeld, Paul, 138 Market st., Perth Amboy (12)
Wiesler, Howard M., Drawer N, Trenton (11)
Wikoff, John L., 799 Pennington av., Trenton (11)
Wilbur, Franklin L., 515 Eighth av., Asbury Pk.(13)
Wilcox, Frank A., 329 60th st., West New York (9)
Wilentz, William C., 188 Market st., P. Amboy (12)
Wilkins, Stanley O., 47 E. Front st., Red Bank (13)
Willan, Edward H., 74 S. Munn av., East Orange (7)
Willetts, Arthur T., 129 Summit av., Summit (20)
Willey, F. Parker, 153 Roseville av., Newark (7)
Willey, Harry S., Jr., 112 Broad st., Red Bank (13)
Williams, David P., 116 Lake dr.,Mountain Lks.(14)
Williams, Edith B., 70 Anderson st., Hackensack (2)
Williams, Frank A., 324 W. Jersey st., Elizabeth(20)
Williams, Harry D., 829 W. State st., Trenton (11)
Williams, Hiram, P. O. Box 266, Montclair (16)
Williams, John J., 78 Walnut st., Newark (7)
Williams, Leonard D., 726 Watchung av.,Plainf'd(20)
Williams, Louis E., 80 Green av., Madison (14)
Williams, Manley C., 753 E. Milton av., Rahway(20)
Williams, Paul T., 626 Perry st., Trenton (11)
Williams, William C., 9 Ridge rd., Rutherford (2)
Williams, William C., Black Horse Pk.,Had'n Hts.(4)
Willis, Benedict P., 185 Montross av., Rutherford (2)
Willner, Albert, Army (7)
Willner, Irving, 18 Waverly av., Newark (7)
Willner, Milton, 822 S. 12th st., Newark (7)
Willner, Philip, 852 S. 11th st., Newark (7)
Willson, James H., 144 Harriston st., East Orange(7)
Wilson, Charles W., 636 Wood st., Vineland (6)
Wilson, Harrison B., 430 Union st., Hackensack (2)
Wilson, Herbert H., 24 Bank st., Bridgeton (6)
Wilson, John H., Jr., 85 Halsted st., East Orange(7)
Wilson, Jon M., 125 Hamilton st., Bound Brook(18)
Wilson, Joseph G., 560 Rutherford av., Trenton (11)
Wilson, Lawrence A., 114 N. Shore rd., Absecon (1)
Wilson, Robert B., 48 Riverside av., Red Bank (13)
Winder, Miles S., Jr., 601 Grand av., Asbury Pk.(13)
Winfield, Irwin, 493 Central av., Newark (7)
Winn, James S., 51 Livingston av., N. Brunsw'k(12)
Winn, Samuel L., 1616 Pacific av., Atlantic City (1)
Winn, William M., 128 Broad st., Perth Amboy (12)
Winslow, John H., 27 S. Valley av., Vineland (6)
Winter, Carl M., 1518 Collings rd., Camden (4)
Winter, Egon W., 825 S. Tenth st., Newark (7)
Winter, Gladys C., 790 Grange rd., Teaneck (2)
Winters, Walter M., 288 Broadway, Paterson (16)
Witkoff, Benjamin, 215 Terrace av., Hasbr'k Hts.(2)
Witkowski, Joseph L.,1450 Mt.Ephr'm av.,Camd'n(4)
Witman, H. John, Jr., 526 N. Clinton av.,Trenton(11)
Witmer, John D., 456 Middlesex av., Metuchen (12)
Witte, C. Norman, 422 River av., Point Pleasant(15)
Wittenborn, William F.J.,1635Br'sw'k av.,Trent'n(11)
Wolf, Erich, 43 Grove st., Passaic (16)
Wolf, Frank A., 494 S. Main st., Phillipsburg (21)
Wolf, Israel J., 231 East 31st st., Paterson (16)

Wolf, Raymond E., 251 Ridgewood av.,GlenRidge(7)
Wolfe, Edward E., 895 Queen Anne rd., Teaneck (2)
Wolfe, Humphrey D., 23 Spring st., Penns Gr. (17)
Wolfe, Jacob S., 44 Watsessing av., Bloomfield (7)
Wolfe, William W., 383 Mulberry st., Newark (7)
Wolff, Herbert M., 942 W. State st., Trenton (11)
Wolff, Jerome M., 935 Park av., Plainfield (20)
Wolfsie, Jacob H.,American Cyanamid Co.,Lind'n(18)
Wolfson, Harry, 356 Park av., Paterson (16)
Wolgin, Philip L., 445 Elmora av., Elizabeth (20)
Wollack, Alfred, 74 Perry st., Park Ridge (2)
Wolowitz, Harry B., 20 Spring Val.av.,Hackens'k(2)
Woltmann, Charles E., 805 Garden st., Hoboken (9)
Woltz, Sidney, 2206 New York av., Union City (9)
Wood, E. LeRoy, 225 Ballantine Pkwy.,Newark (7)
Woodman, Charles B., 212 South st., Morristown(14)
Woodruff, Ralph G., Main st., Englishtown (13)
Woolbert, Edwin, 15 W. Wash'gton av., Pleas'tv'e(1)
Worcester, George F., 220 Engle st., Englewood (2)
Worcester, John T., 220 Engle st., Englewood (2)
Work, John L., Mountainside Hosp., Montclair (7)
Wortman, Harry C., Jr., 17 Warren st., Nutley (7)
Wortman, Herbert M., 121 Buck'gh'm rd.,U.M'tcl'r(7)
Wren, James C., Main st., Closter (2)
Wrensch, Alexander E., 79 Valley rd., Montclair (7)
Wright, Herman W., 818 S. Broadway, Pitman (8)
Wright, Ralph S., 517 Cooper st., Camden (4)
Wright, Robert E., 172 Concord dr., River Edge (7)
Wroblewski, Benj. M., 1166 Thurman st., Camden(4)
Wry, Dean A., 234 Dayton av., Clifton (16)
Wry, Orlin V., 95 High st., E. Rutherford (2)
Wuerthele, Virginia E., 560 Mt. Prosp't av.,New'k(7)
Wuester, William O., 238 Exeter way, Hillside (20)
Wujciak, Henry J., 193 Warwick st., Newark (7)
Wurts, Margaret M., 27 Wellesley av., U. M'tcl'r(7)
Wurzel, Milton, 2 Farley av., Newark (7)
Wyatt, Joseph H., 135 Clinton av., Newark (7)
Wyker, Arthur W., 57 Park pl., Bloomfield (7)
Wynder, Alfred, 654 Lyons av., Irvington (7)

ASSOCIATE MEMBERS

Warter, John P., Jr., 570 Belgrove dr., Arlington (7)
Wiley, Herman O., 326 Shrewsb'y av.,Red Bank(13)
Williams, William E., 9 Ridge rd., Rutherford (2)
Winslow, John, 210 Orange rd., Montclair (7)
Wylly, Martin D., 320 Park av., Orange (7)

Y

ACTIVE MEMBERS

Yablonsky, Max, 30 Shanley av., Newark (7)
Yachnin, Samuel C., 127 Prospect st., Passaic (16)
Yadkowsky, Emanuel, 637 High st., Newark (7)
Yager, J. Allen, 420 Broadway, Paterson (16)
Yaguda, Asher, 61 Lincoln Park, Newark (7)
Yanowitz, Bernard, 165 Jewett av., Jersey City (9)
Yates, Glen L., 270 Ridgewood av., Glen Ridge (7)
Yates, John S., 414 Ellison st., Paterson (16)
Yazujian, Levon D., 562 E. State st., Trenton (11)
Yeaton, William L., Jr., 204 11th st., Hoboken (9)
Yeaw, Ralph C., 310 Broadway, Paterson (16)
Yelin, Gabriel, 200 Clinton av., Newark (7)
Yellin, Charles H., 915 Jersey av., Elizabeth (20)
Yingling, Paul L., 804 Wesley av., Ocean City (5)
Yontef, Reuben, 851 Avenue C, Bayonne (9)
Yood, Harold S., 401 Grant av., Plainfield (20)
York, Jack S., 63 Baldwin av., Newark (7)
York, James L., 331 River rd., New Milford (2)
York, Wilbur H., Box 110, Princeton (11)
Yorke, Benjamin, 908 Main st., Paterson (16)
Yorke, Edward T., 1717 N. Wood av., Linden (20)
Young, Franklin C., 120 Summit av., Summit (20)
Young, George J., 60 Maple av., Morristown (14)
Young, I. Henry, 220 Columbia av., Irvington (7)
Young, James L., 68 Mountain av., Somerville (18)
Young, Ralph A., 842 N. Wood av., Linden (20)
Yuckman, Robert O., 701 Madison av., Elizabeth (20)
Yudkoff, William, 770 Avenue A, Bayonne (9)
Yurevich, Antony, State Hosp., Las Vegas, N.M.(15)

ASSOCIATE MEMBER

Young, William V., 263 Mt. Prospect av., Clifton (16)

Z

ACTIVE MEMBERS

Zacher, Andrew A., 685 High st., Newark (7)
Zager, Saul, 40 Spruce st., Newark (7)
Zahn, Jack R., 90 Paterson av., Gibbstown (8)
Zalewski, Irene J., 181 Paulison av., Passaic (16)
Zampella, Arthur, 921 Bergen av., Jersey City (9)
Zappala, John, 47 W. Main st., Penns Grove (17)
Zbar, Joseph E., 2690 Boulevard, Jersey City (9)
Zdanowicz, Stefan J., 117 Grand av.,Hackettst'n(21)
Zehnder, A. Charles, 188 Roseville av., Newark (7)
Zeiner, Eugene J., 517 Broadway, Paterson (16)
Zeitlin, Herman H., 943 N. Wood av., Linden (20)
Zeltmacher, Kurt, 306 W. State st., Trenton (11)
Zick, Clara U., 60 Highland rd., Glen Rock (16)
Zigarelli, Joseph F., 275 E. 18th st., Paterson (16)
Zimmer, Louis, 622 Varsity rd., South Orange (7)
Zimmerman, Coler, 6 Colony dr., S., W. Orange (7)
Zimmerman, Robert F.,28Wash'gton av.,Mor'st'n(14)
Zimskind, Joshua N., 210 W. State st., Trenton (11)
Zingali, John A., 103 Glenridge av., Montclair (7)
Zinkin, Solomon B., 328 Second st., Lakewood (15)
Zirpolo, Gene A. V., 1128 Bryant st., Rahway (20)
Zitani, Alfred M., 937 Washington st., Hoboken (9)
Zuck, Arthur C., 22 Broad st., Washington (21)
Zucker, Isadore, 112 Shanley av., Newark (7)
Zuckerberg, Irving, 800 Avenue C, Bayonne (9)
Zuckerman, David E., 568 Broadway, Paterson (16)
Zuckerman, Louis, 568 Broadway, Paterson (16)
Zukerberg, Nathan, 21 Johnson av., Newark (7)
Zuloff, D. Blair, 3 Community pl., Morristown (14)
Zvaifler, Nathan, 46 Wilbur av., Newark (7)
Zweibel, Leonard, 871 S. 11th st., Newark (7)
Zwelgel, Isidore, 22 Montlcello av., Newark (7)
Zybulewski, Edmund A., 410 Bergen st., Newark (7)

SUPPLEMENTARY LIST OF MEMBERS—1949

The following were received too late to be included in the Official List proper:

Ainsley, H. Bryson, 246 Union st., Jersey City (9)
Albrecht, William J., 46 Grove st., Somerville (18)
Aronowitz, Harry T., 923 Avenue C, Bayonne (9)
Atkinson, James Q., State Colony, New Lisbon (3)
Barnett, Robert W., 601 Grand av., Asbury Park(13)
Barton, Amy S., 509 Chester av., Moorestown (3)
Bentley, David F., Jr., 406 Cooper st., Camden (4)
Bernstein, B. J., Eliza.-Carteret Hot'l, Elizab'th (20)
Betts, R. Winfield, 22 N. Main st., Medford (3)
Bitten, Robert M., 11 Romaine av., Jersey City (9)
Boland, Lucy E., 27 Washington av., Arlington (9)
Bray, William E., 41 Elizabeth st., Pemberton (3)
Brown, David C., Newton (19)
Buklad, Henry P., 441 Broadway, Passaic (16)
Carlucci, Angelo M., N. J. State Village, Skillman(18)
Caro, Eugene P., 926 Wood av., N., Linden (20)
Ciccone, Anthony C., 389 Grand st., Paterson (16)
Cicione, Edward, 621 Highland av., Palmyra (3)
Clair, Eli C., Main & Tatum sts., Mantua (8)
Cohn, Isidor, 231 Lexington av., Passaic (16)
Connolly, Joseph A.,11 Coddington av.,N.Plainf'd(20)
Connolly, Joseph P., 56 Hamilton st., Paterson (16)
Conti, Michael, 280 Fourth st., Jersey City (9)
Corless, Joseph F., 5503 Palisade av.,W.New York(9)
Davis, E. Vernon, 306 E. Main st., Moorestown (3)
Decker, Henry B., 527 Penn st., Camden (4)
Del Baglivo, Mario, 266 Newark av., Jersey City (9)
Dempsey, J. Harvey, 66 Washington av., Berlin (4)
DiGioia, John, 287 Pacific av., Jersey City (9)
Ehrenfeld, Edward, 185 Lexington av., Passaic (16)
Enright, James G., 25 Kensington av., Jersey City(9)
Fabriele, John B., 1112 Boulevard, Bayonne (9)
Frank, Herman I., 98 W. 35th st., Bayonne (9)
Freedman, Jacob S., 178 Hamilton av., Passaic (16)
Geary, Russell D., 337 Bridgeboro rd., Riverside (3)
Gibson, Charles F., 131 Federal st., Burlington (3)
Giglio, Louis A., 411 S. Centre st., Pottsville, Pa.(16)
Glover, Lawrence H., 53 Kings Hwy.,W.,Had'nf'd(4)
Goldberg, Jacob, 155 Franklin av., Long Branch(13)
Golden, William M., 236 W. Milton av., Rahway (20)
Goldstone, Karl H., 349 Edgew'd av., W.Englew'd(9)
Gray, W. Burritt, 121 Somerset st., N. Plainfield(18)
Guertin, Diomede, N. J. State Village, Skillman (18)
Hall, Wayne W., 515 Broadway, Paterson (16)
Hartman, Luther M., 111 E. Main st.,Maple Shade(3)
Hogan, James J., 211 High st., Mount Holly (3)
Hornberger, J. Howard, 4th & Main sts., Roebl'g (3)
Husik, Franklin B., 101 S. Main st., Glassboro (8)
Ivins, William C., 455 W. State st., Trenton (11)
Jehl, Joseph R., 59 Harding av., Clifton (16)
Katz, Herbert I., 44-A Boulevard, E. Paterson (16)
Keppler, Charles, Jr., 723 Allwood rd., Clifton (16)
Kinczel, John A., 971 S. Broad st., Trenton (11)
Knapp, Victor, 505 Second av., Asbury Park (13)
Krasnitz, Alexander, Fairview San., New Lisbon (3)
Kuder, Joseph M., 104 Garden st., Mount Holly (3)
LeFavor, Dean H., 619 Morgan av., Palmyra (3)
Leibovitz, Alton C., 261 Lexington av., Passaic (16)
Leonard, Bernard, 33 W. Union st., Burlington (3)
Levitzky, Edward, 767 E. Third av., Roselle (20)
Levy, Abram, 1401 Plainfield av., S. Plainfield (18)
Lippincott, Lansing Y., 939 Park av., Plainfield(20)
Longsdorf, Harold E., Bartram av., Mount Holly (3)
Lussier, G. H.,Brisbane Child Treat.Cen.,F'm'gd'e(13)
Lynch, Michael F., 3 Palisade rd., Elizabeth (20)
Macchia, Benjamin J., 358 Arlington av., Jer. C.(9)
MacGahan, William H., 1 Main st., Butler (16)
Manly, Thomas E., 390 Park av., Paterson (16)
Markel, Albert G., 450 Park av., Paterson (16)
Markowitz, Benjamin B., 2749 Blvd., Jersey City(9)
Mazur, Edward F., 540 Bridgeboro rd., Riverside (3)
McCall, Jesse, 9 Linwood av., Newton (19)
McKinley, C. Scott, Bakelite Corp., Bound Br'k (18)
McLaughlin, Thomas F., 19 Durham st.,Metuc'n(12)
McVeigh, Charles J. D., Netcong (19)
Meyers, Francis R., 604 E. 28th st., Paterson (16)
Milanesi, Armand M., 614 79th st., North Bergen(9)
Mills, Charles S., 106 Lippincott av., Riverton (3)
Morris, Nathan, 607 E. Second st., Plainfield (20)
Morrison, Frederick H., Newton (19)
Newcomb, Marcus W., Browns Mills (3)
Nicholson, Frank P., 895 Summit av., Jersey City(9)
Peacock, Arhur B., 201 E. Main st., Moorestown (3)
Peckman, Abram, 2511 Boulevard, Jersey City (9)
Peters, Edgar A. P., 394 Bergen av., Jersey City (9)
Piller, Jacob, 213 Broadway, Paterson (16)
Povalski, Alexander W. T., 1925 Blvd.,Jersey City(9)
Power, William R., Calco Chemical Co., Bd. Br'k(18)
Pusin, Max, 88 Van Reypen st., Jersey City (9)
Rogers, James A., 274 Carroll st., Paterson (16)
Rubenstein, Eli, 783 Avenue C, Bayonne (9)
Rubin, Samuel, 401 First av., Asbury Park (13)
Sand, Abraham B., 207 E. Union st., Burlington (3)
Schefrin, Alexander E., 235 Lex'gton av.,Passaic(16)
Schneckendorf, Samuel J., 179 Harrison av.,Jer.C.(9)
Schultz, Augustin M., 379 Union av., Paterson (16)
Schwartz, Lewis, 2695 Boulevard, Jersey City (9)
Sciorsci, Edward F., 609 Bloomfield st., Hoboken(9)
Serri, William S., 447 Kings Hwy., Swedesboro (8)
Silon, Milton R., 907 Washington st., Hoboken (9)
Simkin, Abraham, 232 Broadway, Passaic (16)
Simmons, Richard J., 254 First av., Elizabeth (20)
Sims, Richard V., Jr., 31 Morris av., Summit (20)
Sirotta, E. Bernard, 220 W. Broad st., Paulsboro (8)
Spurgeon, Chilton E., Newton (19)
Steitz, John A., 200 Garden st., Mount Holly (3)
Stern, Morris H., 439 Clifton av., Clifton (16)
Stokes, S. Emlen, 129 Chester av., Moorestown (3)
Strauss, Clifton J., 51 DeForrest av., Summit (20)
Summey, Thomas J., 800 Golf View rd., Moorest'n(3)
Tannert, Carl H., 331 77th st., North Bergen (9)
Tidaback, Austin J., 981 Townley av., Townley (20)
Vespignani, Pasquale, 863 Montgomery st.,Jer. C.(9)
Wandall, Frederick G., 50 E. High st., Clayton (8)
Weiser, Edward H., 1 E. Main st., Sussex (19)
Wells, William C. V., 220 Hazel av., Delanco (3)
Whitaker, John C., 402 Lippincott av., Riverton (3)
White, Richard E., Grand View av., Wyckoff (16)
Wilcox, John M., III, 415 Lake av., Pitman (8)
Wildman, Edward D., 119 Chester av., Moorest'n(3)
Wolfgang, Vogel F., 546 E. 29th st., Paterson (16)
Wyman, Edward H., 100 E. Broad st., Burlington(3)
Yolken, Harry, 246 E. 31st st., Paterson (16)

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